

May, 1957

The American School Board Journal



**A PERIODICAL OF
SCHOOL ADMINISTRATION**

In This Issue:

Who Can Cure the Spelling Sickness? — *Furness*

**State Responsibility for
School Construction — *Morphet***

**The Administrator and
His Community — *Goldhammer***

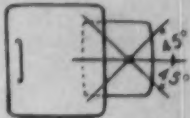
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american desk

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THE AMERICAN School Board Journal

for May, 1957

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Many researchers in basic curriculum claim our students are not learning spelling as well as they might. As a cure to this "sickness," Dr. Furness



follows through on her well-received, spelling improvement program (p. 29, Sept., 1956, SCHOOL BOARD JOURNAL) with a remedial suggestion of who can implement this program to improve spelling.

Money for the schools — an admittedly pressing concern — receives the attention of Drs. King and Morphet. The former suggests a method for stabilizing school's income; the latter, in these days of hue and cry for federal aid, provocatively defines the state's responsibility for new construction.

Other headlines you'll want to read: Goldhammer's insight into the ever present conflict between the conscientious administrator and the community's conservative elements; Cable's compact summary of the basic principles of new teacher orientation; McGill's outline for planning adequate business education facilities.

There's a score of other worthy articles this month and the regular JOURNAL features — including a new N.S.B.A. Report designed to offer you more timely information and more practical service!

WILLIAM C. BRUCE, Editor

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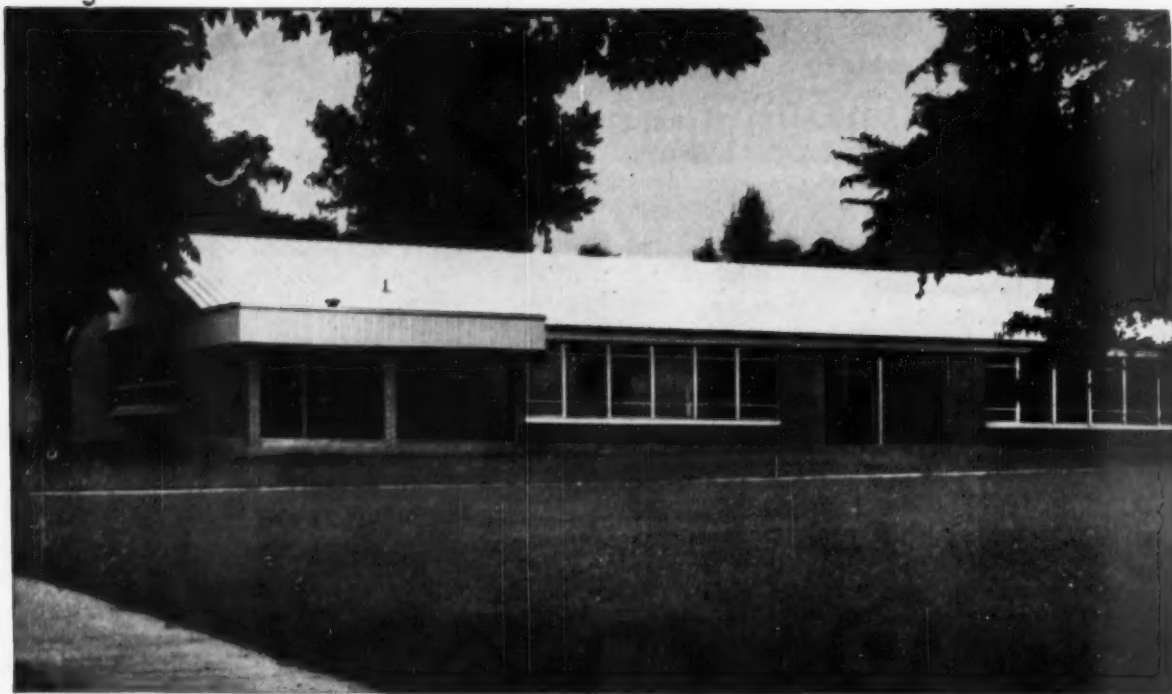
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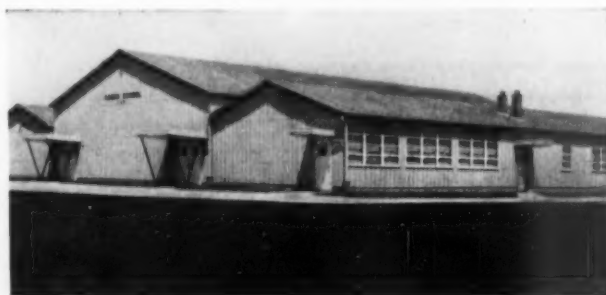


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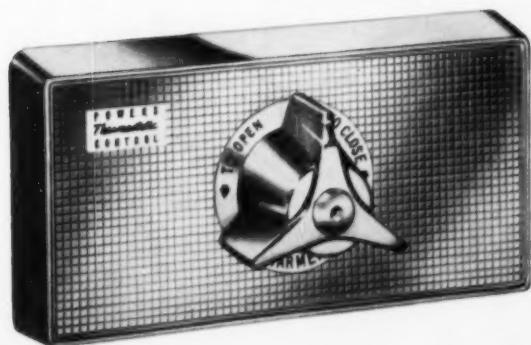


Rankin School near Pekin, Illinois, that uses all metal walls for maximum economy. Interior consists of four classrooms, a kitchen, a gymnasium and five additional rooms.

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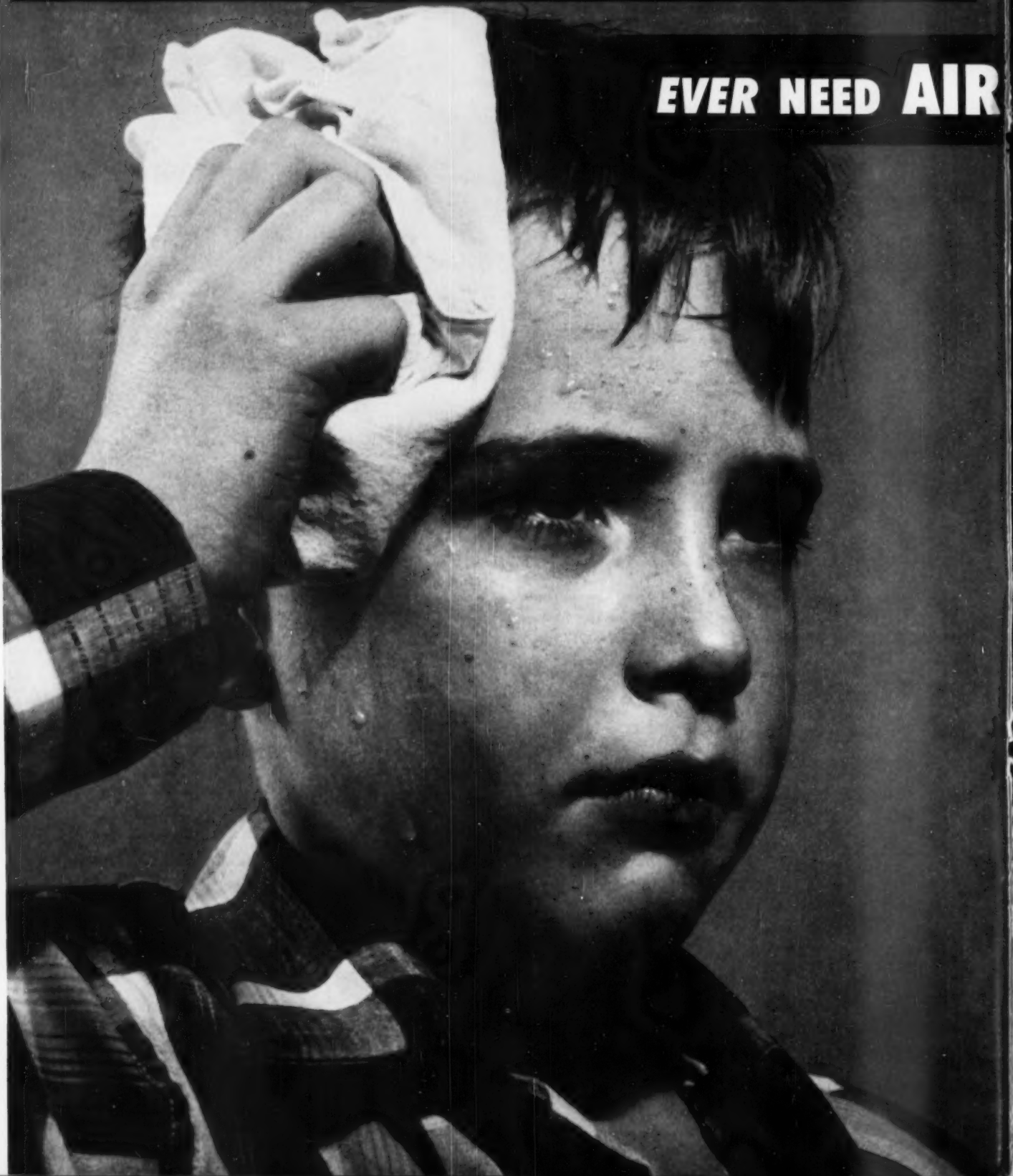


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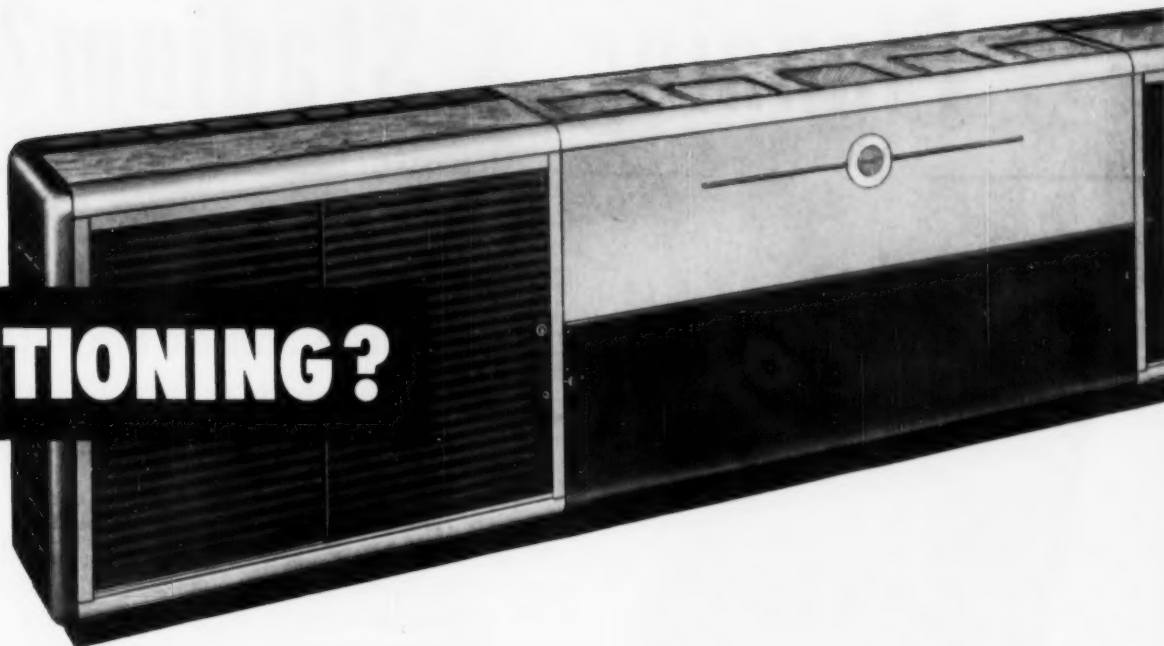
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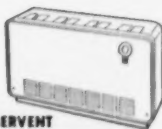
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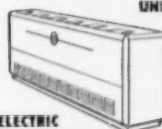
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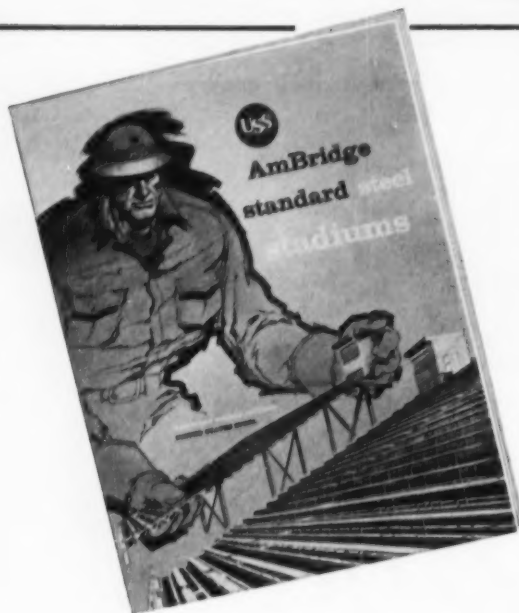


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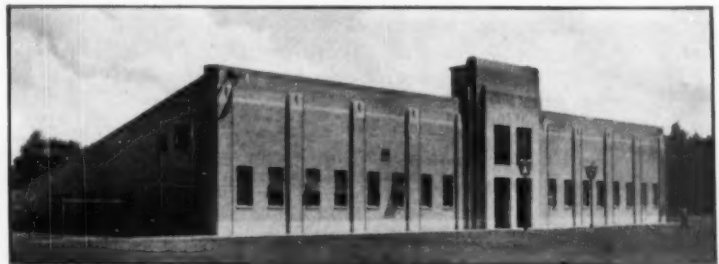
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AMBRIDGE STEEL STADIUMS



UNITED STATES STEEL

Surveying the School Scene



MOBILITY OF POPULATION

A newly released study of the U. S. Census Bureau indicates that between April, 1948, and March, 1956, a total of 33,980,000 moved from their place of abode to a new home. This represents 20.5 of the total population. Most removals were within the county of residence but 5,859,000 moved to another county within the same state and 5,063,000 migrated to another state.

Of significance to school authorities are the facts that 28,857,000 children between the ages of 5 and 13 years moved their homes, and 9,362,000 between the ages of 14 and 17 moved to new abodes.

The medium age of the entire population studied was 31.1 years. The non-movers had a medium age of 33.8 years while the movers were of the medium age of 24.6 years.

ATTACKED ON TEACHER LOAD

The New York Teachers' Guild has asked the State Education Commissioner

to dismiss the members of the New York City board of education. The group has charged that the board is guilty of willful disobedience in failing to comply with an order of Dr. James E. Allen, Jr., which ordered the board to submit detailed information on the pupil-teacher load in each junior and senior high school. Under standards set by the State Education Department, teachers should not be required to handle more than 150 pupils daily. The board subsequently filed a totally inadequate statement concerning the legal pupil loads, and did not reveal that in many cases, the pupil load is over 180.

1956 CONSTRUCTION REVIEW

Affecting the cost of school building in 1956 was the fact that construction costs rose 5 per cent—the sharpest in five years—between 1955 and 1956, the Departments of Labor and Commerce recently reported. Due to a huge expansion "in industrial and other business capacity," expenditures for new construction increased

3 per cent, to a record \$44¼ billion, despite a sharp drop in residential building. Public outlays, the report cited, increased 8 per cent.

While the demand and supply of construction materials—with the exception of steel—were more nearly in balance than in any of the past several years, construction employment reached an alltime peak and wages rose to new record levels.

DR. REED APPOINTED

The appointment of Wayne Otis Reed as Deputy Commissioner of Education, Department of Health, Education, and Welfare, was announced recently by Education Commissioner Lawrence G. Derthick. Dr. Reed, former Nebraska Superintendent, has served as Assistant Commissioner for Educational Services in the Office of Education since 1951. He succeeds Dr. John R. Rackley, who resigned last October to become dean of the college of education at Pennsylvania State University.



Wayne Otis Reed

IDEALS FOR THE BOARD OF EDUCATION CANDIDATE

1. The candidate for a position on the board of education should know and believe that education is a most important function of any civilization; he must know and believe that this is especially true of a democratic civilization such as ours. His responsibility, therefore, is very heavy.

2. Without appearing or wishing to appear nobler than he is, a candidate for this position must hold no hope of personal gain from his membership. He may expect to lose time and effort in it, sometimes thanklessly, though not always.

He must realize that this is not a political position; it is not political at all. People who wish to begin or further a political career should not try here.

4. A candidate should be primarily interested in what goes on in the classroom. Everything else—buildings, budgets, etc., though they have their own importance—is secondary. Board of education members should never forget the first importance of the instructional program.

5. In the formation of policy, the board is responsible. The board should be guided by the experience and knowledge of the superintendent, though board members are not obliged to be guided so. Neither the superintendent nor the board should be a rubber stamp for each other.

6. The board candidate must be willing to bear complaints without asking for them, and he must be able to bear criticism without bitterness. We grow by criticism from within. This is a part of the history of the development of America.

7. He should be willing to represent the public to the teachers and the teachers to the public. I know countless board members who are capable of representing the public to the teachers, but I do not know many who can fulfill the other half of this obligation, important as it is.

—DR. QUINCY GUY BURRIS
President, Las Vegas, N. Mex.,
board of education

DR. MISNER ACCEPTS POSITION

Dr. Paul J. Misner, retiring president of the American Association of School Administrators, and Superintendent of Schools in Glencoe, Ill., has accepted the position of president of the School Facilities Council of Architecture, Education, and Industry. The Council consists of outstanding men in architecture, education, and industry who are concerned with the betterment of education through better school plants and equipment.

DR. JANSEN TO RETIRE

The New York City board of education is seeking a successor to Supt. William Jansen, who will retire on September 1, 1958.

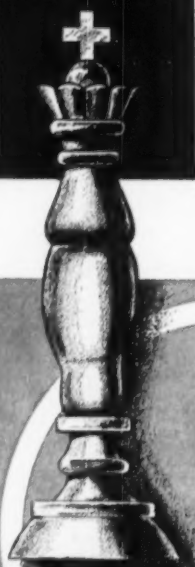
STUDY FEDERAL AID

A special committee of the Minneapolis board of education, headed by John B. Lund, has worked out a statement recommending a federal program of aid to education. The committee declares that federal aid will be inevitable but admits that in as much as Minneapolis has more taxable wealth per pupil than the average city, the proposal will not

(Concluded on page 64)

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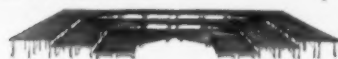
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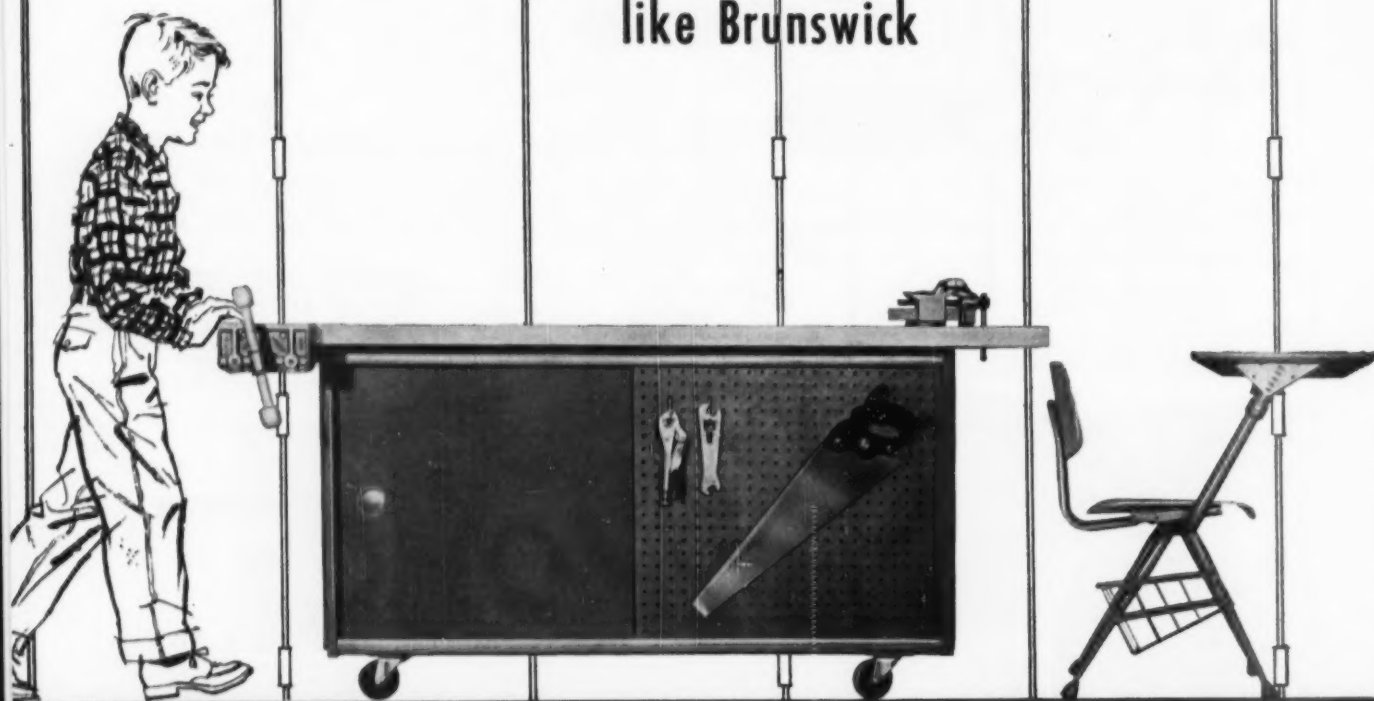
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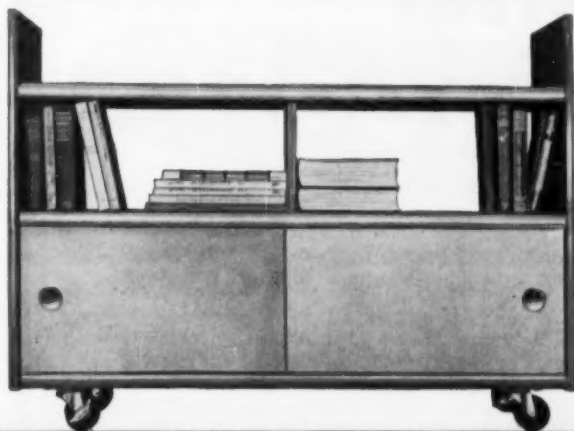
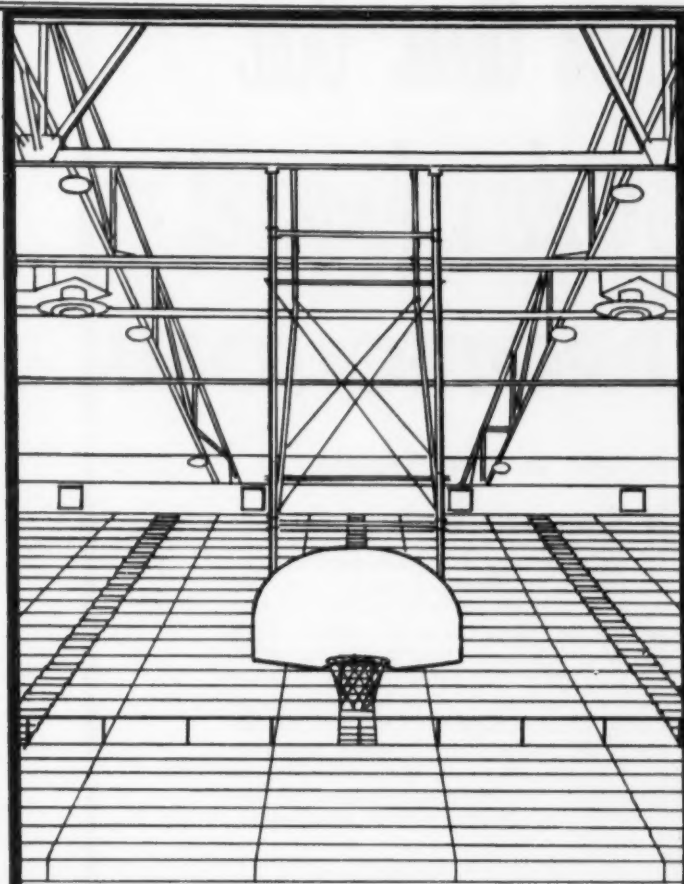
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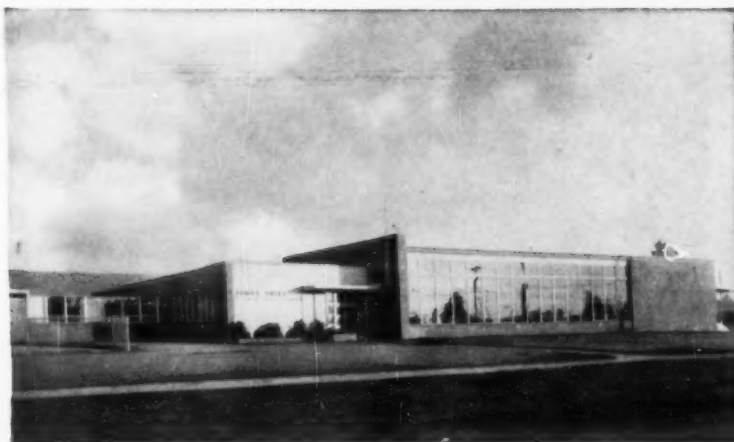
ALTERNATE COST DATA

Summary of installed costs per M sq. ft.
Based on actual suppliers' quotations and
time records where available and on Walker's
Estimator's Handbook where not:

1. As built, with clips, eliminating
blocking at panel edges. Includes
cost of new plywood and 50% of
initial cost of exterior plywood sal-
vaged from forms \$169*
2. Estimated cost as built but using
all new sheathing with no salvage
from concrete forms \$187
3. Estimated cost all new sheathing
with 2 x 4 blocking at panel edges . \$206
4. Estimated cost 2 x 6 T & G decking . \$291

*169.00 per M "as built" cost represents
\$122.00 per M savings over estimated cost of
2 x 6 T & G decking. On this basis, savings on
entire job total \$3,300.00.

To eliminate 2 x 4 blocking, metal "H" clips were used at unsupported panel edges. Two clips were used for each span. (Clips were responsible for approx. \$20 per M of savings; see table above).



JAMES SALES ELEMENTARY SCHOOL;
Tacoma, Washington
ARCHITECTS: Lea, Pearson and Richards
CONTRACTOR: Nelson Construction Company
STRUCTURAL ENGINEERS: Smith and Murray

5 ways Fir Plywood builds better schools

AN EXCELLENT EXAMPLE of how fir plywood roof decking sharply cuts costs as well as provides markedly superior construction is this new U-shaped, 1-story reinforced concrete school.

The contractor estimates $\frac{3}{4}$ " fir plywood saved a total of \$3,300.00 on the job; \$2,800.00 in actual installed cost, plus an additional \$500.00 by amortizing costs of some of the panels previously used for forms. A total of 27,000 sq. ft. were used on the job. Design calculations by the architects show plywood superior in resisting racking forces such as wind loads and earthquakes.

Although many home builders have found thick plywood over wide rafter spacing saves money, this is one of the first detailed cost analyses for a larger building. The idea points the way to new opportunities for reducing costs on commercial and industrial buildings as well as schools.



Fir Plywood

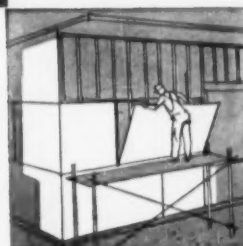
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FOR YOUR FILES: A new portfolio assembly of basic plywood design and application data for schools, homes, commercial buildings. Includes detailed information about job described above.

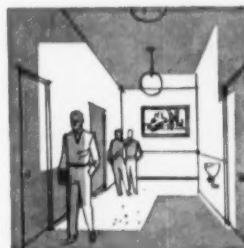
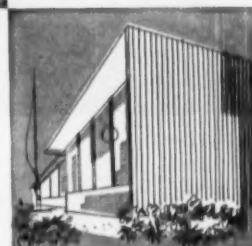
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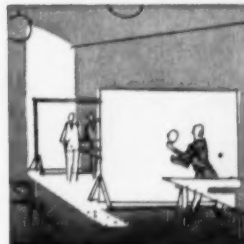
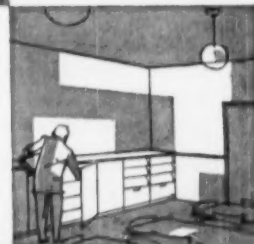
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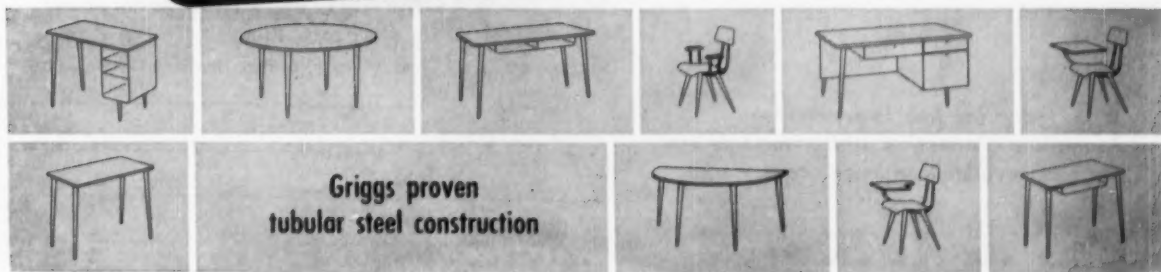
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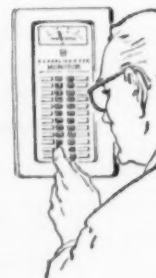
The Honeywell system also provides the economical means of controlling heat and ventilation for partial use of school facilities during the school day and by civic and com-

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In addition, the Schoolmaster system may include an indicator panel for the principal's office which gives a finger-tip report on all room temperatures. It functions also as an auxiliary fire detection system.

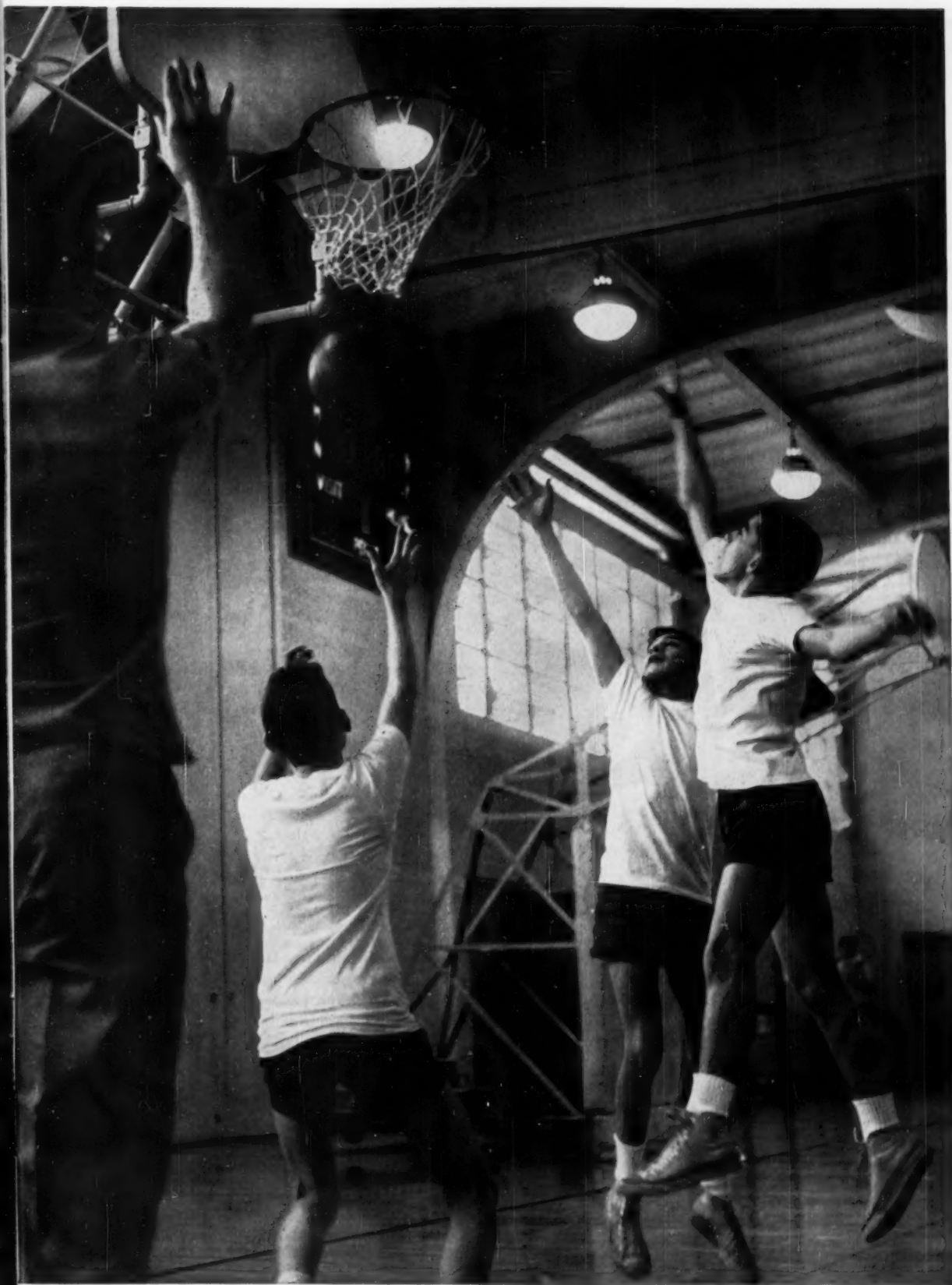
The Schoolmaster is an exclusive Honeywell development designed for any school, new or old. No major building alterations are necessary as the wiring is simple. For more information on how the broad line of Honeywell temperature and ventilation controls can serve you, call your local Honeywell office or write to Minneapolis-Honeywell, Dept. AJ-5-39, Minneapolis 8, Minnesota.

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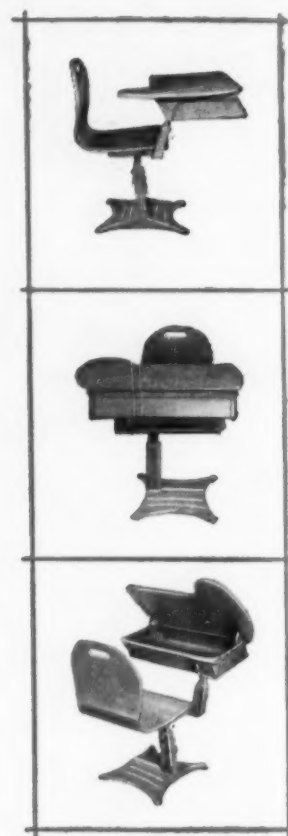
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SCHOOL BOARD JOURNAL for MAY, 1957



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Write for our free booklet and classroom planning kit "Design for Learning."

For a flexible educational tax base, relate expenditures to the living cost index—

A Remedy for Education's Volatile Income

EDGAR A. KING

Associate Professor of Education, State University College for Teachers
Buffalo, N. Y.

Recently a research specialist of the New York State Teachers Association pointed out that the educational budgets of too many school districts in New York State were becoming too dependent on state aid as a source of income, and that the state sources were largely dependent on the state income tax which would respond in a "volatile" manner to any degree of business recession. This same situation holds true in many other states. The implication is that schools should strive for a fine balance between such sources of income and other sources which do not react so rapidly to changing business conditions, probably the tax on real property.

While recognizing some validity in this position, it would appear to be a step backward to implement it too literally, in view of the struggle of the past 30 years to broaden the tax bases for educational purposes.

A Business Index Base

It might be a better course to explore the possibilities of making the expenses of education more responsive to the movement of the business index.

During the past decade there has been a tremendous amount of publicity about the plight of the school teacher in his attempt to live in our expanding economy. Year after year there have been demands for cost of living adjustments. And year after year the teaching profession has watched such adjustments wiped out by a further inflation of our currency. The manifest problems of school districts in attempting to meet this situation have been most trying.

Might it not be a better course to establish teaching salary schedules on a basis relative to other professions and vocations, taking into consideration preparation, contribution, working con-

ditions, prestige, and general attractiveness of the teachers job? Then having established such a schedule, would it not be possible to vary it automatically in relation to the cost of living index? Such a plan would approximate the "escalator clause" found in many business contracts with labor. It would also serve to take up some of the extended lag between prices and wages during either inflation or deflation.

Wages and salaries of nonteaching personnel and retirement systems could come under the same plan. Thus with all expenses for salaries on a flexible basis, the largest single item in most school budgets would be given an elasticity that would react directly to the cost of living.

The Problem of Debt Service

This leads to another large item in the typical school budget, debt service.

In this matter, would the school districts have the status to pioneer in the issuance of bonds which would pay off their principal in terms of the business index? Such an innovation would not be too drastic in view of the success of the governments of Sweden, France, Israel, and Finland in issuing "purchasing power" bonds.

Such bonds would have all of the traditional advantages of bonds as an investment: safety, liquidity, and tax exempt interest. They would have the additional advantage of being constant in their purchasing power. This would be a tremendous feature for industries, personal trusts, and partnerships who account for about 40 per cent of the traditional investors in school bonds. It might be the feature which would attract investment in school bonds by foundations, and educational and charitable institutions, which presently do

not constitute heavy investors in this type of security.

Interest rates based on cost of living indices might also be incorporated as a feature of school bonds.

If salaries and debt services could thus be placed on a basis which reacted directly with general business conditions, the two largest items in most school budgets, or almost 70 per cent of total expenditures would be on a "flexible" basis. The remaining items in the average budget consist largely of items which do respond more readily to general business conditions, books, supplies, transportation, maintenance.

It might be argued that to place such a reliance on the cost of living index might open the way for manipulation of the index for political purposes. There is probably some justification for this fear. However, the cost of living index which is issued from the Department of Labor is established by a department underpinned with reliable, career statisticians fortified by Civil Service status. They are eager to establish the position of the social scientist in economic affairs and would reject attempts to make them anything but objective in their analyses. At any rate their findings have been acceptable to labor unions and the management of many railroads and manufacturers as a basis for contracts. Further safeguards might be in order to protect the objectivity of cost of living indices.

If the educational tax base is volatile to the point of constituting a real threat to American public school education, it would appear to be a more intelligent approach to attempt to make educational expenditures volatile also. To turn back from the present tax base to the basis used in 1900 would be to regress, to the detriment of our school system,

STATE RESPONSIBILITY FOR NEW SCHOOL

EDGAR L. MORPHET

Professor of Education, University of
California, Berkeley

**An important consideration
of state school
construction aid: what
states are doing;
what are the major
problems; and what are
the criteria for forming
effective state programs.**



A majority* of the states have not yet faced realistically the need for developing a plan which will assure that adequate school plant facilities can be provided during coming years for children throughout the state.

The facts show that there are some districts in practically every state which do not have sufficient resources to provide adequate housing for their children and that there is a substantial number of districts which cannot provide such housing with a reasonable local tax effort. This situation has existed for many years and is likely to continue in most states unless adequate and realistic plans are formulated and put into operation.

Complications From District Organization

The problem of assuring adequate housing for all children is complicated in many states by the existing district organization. While some states have reorganized their districts on a reasonably adequate basis, many still have a number of small districts in which the housing problems can never be solved satisfactorily as long as the present district organization is continued. Some of these districts represent islands of wealth while others, often adjoining districts, constitute islands of poverty. It is difficult to persuade the people in wealthy districts with an abundance of resources and often with low tax rates to merge with poor districts which may have a large number of children, very limited local resources, and relatively high tax rates.

Another complication is encountered in those states which have a substantial number of separate elementary and high school (not to mention junior college) districts with different administrations and provisions for financing schools. Recent increases in elementary and prospective increases in high school enrollments will require additional facilities in many of those areas but such facilities are separately financed and owned and there is little flexibility except within the individual districts.

While a solution to the problem of district organization would facilitate the matter of providing adequate housing for all

children, reorganization alone would not mean that such housing could be provided. The development of a sound long-range plan for state assistance in financing school plant construction would still be essential.

Bonding and Taxing Limitations

As pointed out in a number of studies and as emphasized in the report of the Committee for the White House Conference on Education, constitutional or statutory limits for bonding for school purposes are still unrealistically low in a number of states. Provisions such as those in Indiana and Kentucky, which limit the bonding capacity of districts to two per cent of the assessed valuation, should not in any sense of the word be considered adequate. Even if the assessed valuation approached closely the actual value of property, such a limitation would be considered too restrictive by most people. Moreover, even a higher limit applied to the low assessment ratios found in a number of states means that the people in many districts cannot go very far toward providing satisfactory plant facilities even though they may be willing to make greater effort than now authorized.

An equally or even more serious problem is represented by the varying assessment ratios found in many states. If a 10 per cent limit for issuing bonds is authorized by a state, the people in a district in which the assessment ratio constitutes 50 per cent of actual value can come nearer meeting their needs than people in a district of equal ability with an assessment ratio of only 25 per cent. Thus any limitation on bond issues is inequitable in a state in which assessment ratios vary widely.

The procedure for voting bonds prescribed in a number of states seems to present unnecessary difficulties and complications. The situation in the state in which only a simple majority is required for authority to issue school bonds is quite different from that in a state, such as Washington, in which at least 60 per cent of those voting in election must favor issuing bonds but the number participating must be equal to at least 40 per cent of those voting in the last general election. Several states require a two-thirds vote. Others provide that only property owners may

*Adapted from an address given by the author at the 1957 A.A.S.A. convention.

CONSTRUCTION

participate in the election and still others impose other complications. It seems evident that states which have such restrictive provisions should restudy the situation to determine whether more realistic and equitable procedures may be established as a means of facilitating needed school plant construction in many districts.

Several states have special laws authorizing tax levies for capital outlay purposes. Again we find what seem to be needless complications in the voting procedures. One of the most annoying and unrealistic is the provision in a few states that taxes may be voted for only one year at a time.

A brief study of this situation leads to the conclusion that the people in many states could do much more than they are now doing to make it possible for many local school systems to take additional steps toward providing adequate school plant facilities. This statement should not be construed to mean that raising bond limitations would be desirable for all states or that simplifying election procedures supplemented by higher borrowing capacity would make it possible to solve the school-housing problem by the use of local resources alone. In fact it is evident that other steps are needed in many of the states if satisfactory progress is to be made.

The tradition that the local school district should be responsible for providing and financing its school buildings seems still to be well entrenched in many of the states. In fact this point of view has constituted a serious obstacle to the development of a sound program designed to meet the needs. For several years the people in most states have recognized that the property tax base is too narrow to serve satisfactorily or equitably in financing the current operation of schools. Why should it be continued as the sole source of revenue for financing school plant construction? Since the state has more ready access to most other sources of revenue than the local school system, and since there are some districts in every state which cannot provide adequate housing without excessive local effort, it would seem that some state assistance in financing public school capital outlay should be considered imperative in every state.

The only comprehensive study which

has been made of state provisions for financing public school capital outlay programs was carried out as a co-operative project in 1951 by members of the staffs of the United States Office of Education and of the Department of Education of the University of California, Berkeley.¹ Some of the information in the bulletin reporting this study is, of course, now out of date. Fortunately, the Office of Education is making a restudy and a new report providing reasonably current information should be available in the near future.

By 1951 some 19 states were providing a certain amount of assistance from state funds for financing capital outlay. The number has now been increased to approximately one half of the states. In 1951 most of the state provisions were of an emergency nature. In some cases educational authorities recognized that an emergency appropriation for a few years would not solve the long-range problem but presumably emergency funds were all that could be obtained. In 1957 we find much the same situation. Most of the state appropriations are still of an emergency nature. It is encouraging, however, to note that a few long-range programs have been established and that some of these are beginning to approach adequacy.

Kinds of State Provisions

The most common kinds of state funds or appropriations for school plant construction which have been established thus far are discussed briefly in the following paragraphs:

1. **Loans:** Provisions for loans from state funds to school districts constitute one of the early efforts in several states to assist districts with their school plant problems. While state loans have undoubtedly been of some benefit, it is now generally recognized that loans alone will not do the job for districts which have such limited wealth that they cannot obtain or repay loans in sufficient amounts to provide the buildings needed.

2. **Flat Grants:** Flat grants of various types also constitute one of the early steps taken in connection with state assistance for building. In many cases the grants were of a token nature designed either to give some assistance or stimulation or both to certain types of districts or perhaps to all districts. Frequently local matching was required. While grants of funds from state sources may relieve the burden on the property tax to some extent, they do not necessarily solve some of the major problems involved. Flat grants fail to take into consideration the differences in ability of districts and may provide more assistance than needed for certain types of districts and far less than necessary for others. Moreover grants do not consider the effort a district has made or failed to make in the past nor do they consider possible increases in the ability of a district during coming years. As has been shown many times uniform matching require-

¹State Provisions for Financing Public School Capital Outlay Programs; U. S. Office of Education Bulletin 1951, No. 6

ments are inequitable in that the less wealthy districts are not in as good position to provide the matching funds as the more wealthy districts.

3. **Grants to Needy Districts:** When grants are based on approved applications from districts that have urgent needs, they should of course help to solve the problems of some of those districts. Unfortunately, however, these grants are likely to involve a number of subjective factors and decisions and may fail to take into consideration possible increases in ability of the district in the future. A district with a rapidly growing population and little wealth at the present time may, in a few years, have considerable more per capita wealth as new industries develop and thus may be in reasonably good condition to finance its program.

4. **Loan-Grants:** A few states, such as California and New York, have developed loan-grant plans. Such a plan represents a forward step in that the ability of a district over a period of years is considered in scheduling repayments. Districts which cannot make full repayment with a reasonable local effort over a period of 25 to 30 years may have the unpaid portion of the loan cancelled. The loan-grant plan is usually considered an emergency plan which is designed only to meet the needs in the most acute situations. Moreover participating districts may be burdened with heavy indebtedness and repayments for many years. If a district does not increase in ability, it may have to negotiate additional loans, provided funds are available, and may thus incur a responsibility for burdensome repayments unless provision is made for a uniform rate of repayment regardless of additional loans. A few states which have combined the loan grant with a long-range plan seem to have taken steps to overcome the difficulties inherent in the loan-grant plan alone.

5. **Building Authority Plans:** Pennsylvania is recognized as the state which has pioneered with the building authority plan, although such plans have been developed to a greater or lesser extent in a number of other states during recent years. Within the past couple of years the building authority plan has been given considerable encouragement in various ways, and particularly by the provisions in one of the first bills submitted to Congress by the administration. The building authority plan, if all the legal obstacles can be overcome in a reasonable period of time, may make it possible for states, which have not been able to change their indebtedness limitations or to establish a defensible plan of state support, to provide buildings for districts which could not otherwise obtain such buildings. From one point of view the state building authority plan or the local authority plan, as used in Kentucky, may be considered a means of increasing debt limitations without changing the constitution.

On the basis of experiences thus far, two observations seem pertinent: (a) The plan can be made to work reasonably well under certain conditions but there are likely to be a number of difficulties and the basic problem remains unsolved. (b) Unless some provisions can be made for additional state funds to be apportioned to districts for use in paying rental on the buildings which are provided, the least wealthy districts will not be in position to finance the buildings without

The sooner we realize that all states have responsibilities for assisting with new construction, the better off we shall be. The sooner we can establish sound, continuing long-range programs with adequate provision for meeting emergency needs, the more quickly we shall be in position to solve our schoolhousing problems throughout the nation.

excessive effort or without curtailing their current program. This has been found to be the case both in Pennsylvania, and in Georgia.

6. Long-Range Plans: A few states, such as Florida, Kentucky, and New York have developed continuing programs for financial assistance for school plant construction. These programs provide that from state and local effort combined a certain amount is to be made available each year to each district for capital outlay purposes. The idea is that, if a reasonable amount of funds can be made available each year from the state to supplement the funds which can be provided by each district on the basis of some reasonable minimum uniform effort, the district should be in position to meet its capital outlay needs from year to year.

The chief difficulty in this plan is that the continuing grants alone do not suffice. Rapidly growing districts or districts with a large proportion of unsatisfactory buildings cannot wait for 10 or 20 or more years to build some of their buildings. When new buildings are needed they are needed *this* year, not several years hence. As a consequence several states have found it necessary to supplement this provision for long-range financing from current funds with a plan for loans to permit districts to borrow funds to build buildings as needed. Either the proceeds from the annual unit grant or from taxes may be used in repaying such loans.

7. Administration and Control: For one reason or another several states have assigned the responsibility for administering the program involving state assistance for school plant construction to some agency, either newly created or already established, other than the state department of education. This seems to be a pronounced tendency in the case of emergency programs. On the other hand the responsibility for administering the continuing long-range programs seems to have been assigned generally to state departments of education where it properly belongs.

Some Major Problems

While, in general, we know how to proceed to establish a sound program involving state assistance for financing school plant construction, there are still a number of troublesome problems which require careful consideration in every state. The basic problems in states which have not yet developed a reasonably sound plan include the following:

1. What steps politically and otherwise can be taken to remove limitations, obstacles, and inequities that now prevent

the people in a number of districts from doing what they should and in many cases would like to do to help themselves? There are several states in which constitutional provisions will need to be changed, others in which statutory changes will be necessary and still others in which assessment policies and practices will have to be improved or other steps taken as a basis for determining more realistically the ability of the various districts.

2. How can a sound and long-range program be developed and established instead of relying on emergency provisions which are not basically sound or defensible and which must be continued from time to time even if emergency needs are to be met?

The more specific problems which will be encountered in every state and which must be resolved satisfactorily include the following:

1. What measure of need should be used to determine the capital outlay requirements in each district? Several states still use more or less subjective measures for determining capital outlay needs. Approved application is one of the most common of these. While it is true that some objective factors have been used in determining which applications are to be approved, there are still many subjective elements which enter into the situation in most states using this procedure.

Several states are using square footage per pupil. If such a measure is used, it of course has to be adjusted for necessary small schools. It may work reasonably well for large schools if the square footage is adequate but if it is too limited, as is the case in a number of situations, it tends to handicap districts in planning their school buildings. In fact, low square footage limitations may tend to stereotype the program and stifle local initiative. Such limitations, particularly when practically all district resources are utilized in arriving at local required effort, may mean that a district practically has to plan its curriculum to meet the space that is available. Such developments undoubtedly are not desirable.

Several states have used the weighted pupil or the adjusted classroom unit. If this measure is properly developed, it has the possibility of providing flexibility for districts in planning their programs. For example, if classroom units are developed in terms of the minimum number of teachers required for necessary small schools as well as for large

schools, an adequate allocation made on the basis of such units enables the district to plan its housing needs to meet its program without the handicap of arbitrary square footage limitations. The classroom unit, as used in a number of states, includes not only the area needed for a classroom, but the proportionate part of the educational service areas. Thus a district whose need is measured in terms of 100 classroom units has much more leeway than a similar district whose need is expressed as 100,000 square feet.

Another aspect of measuring need is to determine the funds required to finance each unit of need. This can be expressed in terms of so much per square foot, if square footage is used, or so much per classroom unit if that unit is used. The means of translating units into costs must be realistic if it is workable. It cannot be too low or it will not meet the needs. It cannot be too high or it may encourage extravagance. It can, however, be established on the basis of realistic studies of costs which can be adjusted, from time to time, if proper provision is made for using a construction cost index as is now done in New York.

2. What measures of ability should be used to determine the funds which should be provided by the district? Obviously, if assessment ratios vary from county to county, a uniform levy on existing assessed valuation cannot be equitable as we have long since concluded in connection with the financing of the current school program. If assessment practices are uniform throughout a state, the problem is not serious but states in which assessment ratios vary face the necessity of developing a plan for determining ratios between assessed and actual valuation and making adjustments accordingly, or for developing and using some index of taxpaying ability.

3. What effort should districts be required to make to participate in the program? There are really two aspects of this problem: one is the immediate effort in the way of issuing bonds or of providing cash and the other is the continuing or long-range effort. If a district is to be expected to issue bonds to its full capacity and if these funds are to be supplemented by state funds which are sufficient only to meet emergency needs, the district has no leeway whatever. Such a procedure would mean that participating districts are constantly in a straight jacket, are really controlled by the state program, and have no opportunity to construct buildings to meet their local needs except insofar as the state program provides for those needs. It should be evident that some reasonable leeway is necessary for every district if a number of the undesirable developments are to be avoided.

As far as the continuing effort is concerned, it seems reasonable that every district which participates in the program should be expected to make some uniform minimum local financial effort. This effort should be based on a bonafide measure of ability rather than on assessed valuation alone unless assessment ratios are uniform. The effort which should be required should be based on a careful consideration of the relative burden on the general property tax for supporting schools and the need for a broadened tax base to help with school construction.

(Concluded on page 70)

Needed: a good teacher—

Who Can Cure the Spelling Sickness?

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— Photo courtesy Milwaukee Public Schools

Glancing back into history* we note that the eighteenth-century reformers—notably Swift, Priestley, and Doctor Johnson—were indomitable in their efforts to standardize English spelling. Even though they were inconsistent in their own spelling, and even though the vast majority of changes they proposed were not scientifically sound, they set about to fix, regulate, and standardize English spelling for their own age and for all eternity. And with the publication of *Samuel Johnson's Dictionary* in 1755, the English had a universally accepted guide to the mysteries of orthography.

The Correct Habit of Spelling

This zeal for "right writing" took hold in England. It took hold also in America with the "spelling bee" rising to such fetishistic heights that many a person climbed the social ladder or established himself in a community by spelling such monstrosities as *antidis-establishmentarianism*. Our provincial faith and reverence for correct spelling permitted so distinguished a man of letters as Oliver Wendell Holmes to comment that Boston had for one of its distinctions "its correct habit of spelling the English language."^{12†}

In the early school, spelling was an independent study, even being used as a method of learning to read. In fact, it was difficult to understand how one who could read could not spell. Drill in repeating the letters in their proper order was the important thing. Even then, dissatisfaction with the spelling situation was prevalent. Finally in 1897, Dr. J. M. Rice called attention to the futility of the spelling grind; he questioned the value of devoting 40 to 50

per cent of the school time to spelling.¹³ Did drill pay? Did we get the results which ought to be expected, considering the time we spend on the subject? He decided that we did not, and he convinced others of the time and effort wasted in spelling instruction as it was being given.

Some ten years later, William T. Foster wrote about the results of careful tests at several colleges for the three years (1908–1911); 25 per cent of the students missed such common words as *licorice, existence, recommend, descendant, sieve, annulled, villain*; 52 per cent failed on *accommodate, occurrence, stationery, referred, rhythm*. Foster mentioned also a report on entrance examinations in English at Harvard College, issued by the University publication office, and giving further evidence that the best graduates of our public schools can't spell.¹⁴ About the same time Dean Briggs of Harvard made this statement: "We have boys who cannot spell, men who cannot spell, teachers who cannot spell, college professors who cannot spell, and who have a mean opinion of spelling."

Progress of Inquiries

At the turn of the century the scientific movement in spelling showed the futility of the traditional methods and stimulated inquiry concerning methods of improving spelling instruction. Since then many investigations have been made to discover the truth about spelling instruction. Excellent summaries, reviews, and bibliographies have been presented in yearbooks and other treatises by numerous leaders in the field including Horn, Gates, Breed, McKee, Tidyman, Zyve, Betts, Foran, Seegers, Sister Irmina, and Watson.¹⁵

Despite the many books and treatises concerning spelling, the results achieved in the teaching of spelling are still

not highly satisfactory. We would like to present positive evidence on the spelling situation, but unfortunately such is difficult to find. Most of the evidence is of the negative variety. For example, Fox and Eaton, in their study of elementary school pupils in the city schools of Indiana, found that 27 per cent of the pupils were spelling normally, 25 per cent were accelerated, and 48 per cent were retarded, the average retardation being one and a half grades below the expected norm.¹⁶ In another study of township schools, Fox found conditions similar to those discovered in the city schools.¹⁷

The present generation of poor spellers, according to research studies, includes large numbers of high school boys and girls. In his study Oliver E. Harris found spelling achievement in high school and college to be surprisingly low.¹⁸ And three years later, Fred Ayer showed that, in the over-all picture, there is a "deplorable falling-off in current high school spelling."¹⁹ Other evidence of "spelling sickness" may be cited. In Denver, a survey of 1953 and 1954 graduates and their employers was made. Five hundred employers were interviewed and questionnaires were answered by 459 graduates, about 27 per cent of those employed. About 40 per cent of the graduates reported that of the four basic skills listed on the questionnaire they had received the poorest training in spelling. The employers generally were satisfied with the preparation of the high school graduates but they believed that about 30 per cent of the graduates need more training in spelling.²⁰

The situation becomes even more complicated when excuses fail. The difficulty of learning to spell the many irregularly formed English words has often been given as an excuse for poor spelling; however, this is not a valid

*The author wishes to express her appreciation to Kenneth Jay, Instructor in English Education at the University of Wyoming, who read the manuscript and offered suggestions.

†Please refer to the bibliography at end of article.

excuse because there is evidence that many people do learn to spell without feelings of hardship.⁶ Although many educational authorities have agreed that general intelligence is a contributing factor in ability to spell correctly, they readily admit that intelligence does not explain all cases of good or of poor spelling. We must remember that there is no direct correlation between spelling and intelligence (the correlation is in the neighborhood of .30 to .40); on the other hand, there is a correlation between spelling and visual acuity. We cannot assume that English spelling is a learning handicap, or that all students who misspell are either stupid or careless.⁸

Responsibility of Teachers

The question arises, "To what extent are our teachers responsible for the present spelling sickness?" Some high school teachers and most college teachers are somewhat responsible: some are disinterested, and others feel the problem of orthography to be something either too elementary or too trivial to command their academic attention.⁷ Educational thought that all should be educated—rich and poor, high IQ's and those not so high—is showing that this aristocratic attitude is definitely atrophied in this atomic age when universal education is a *must*.

A second question arises, "How can teachers teach a skill about which they know very little?" In a survey made of the preparation of secondary English teachers in North Central Association high schools, Dr. Harry H. Hoffman, Associate Professor of English at Pitts-

burgh, Kans., State College, found that college presidents, chairmen of college English departments, superintendents or principals, and English teachers themselves are of the opinion that teachers know very little about the teaching of spelling. Furthermore, the participants in this investigation are of the opinion that methods of teaching spelling need more emphasis in the preparation of secondary English teachers.¹⁰ We may say then that the root of the problem goes back to the teacher education institutions.

Despite the jaundiced eye with which education courses are eyed, we submit that teacher training programs should include a course with substantial intellectual content (not a professor's opinions or personal biases) which would enable teachers and administrators at all levels—elementary, secondary, and collegiate—to understand better the spelling act. As a matter of fact, some of the education courses in which students say they are learning more and more about less and less are merely evidence of stagnation in certain areas of our teacher education program; and they should be replaced by courses that teachers need desperately.

In the past several decades we have learned much about the problems of teaching spelling to our children. We know from such studies as the Thorndike word count what are our most frequently used words. We have found out that systematic teaching of spelling begins where incidental learning leaves off; and that regular spelling periods in a school day have their place when they are used to focus attention upon the in-

tricacies of spelling. We have information that laboratory experiments, as well as class experiments, have made possible great improvements in the efficiency of the learning of spelling. In fact, except for research in reading, research in spelling is probably greater in scope and intensity than in any other area of language instruction. Shortcomings in the teaching of spelling, therefore, are due not so much to a lack of satisfactory evidence concerning spelling as to the failure to apply this evidence in instruction, or to erroneous interpretations.¹¹ In other words, teachers are failing to apply the principles that research and expert opinion have given them.

In Conclusion

The evidence seems to indicate that youth have failed in spelling in the past; in spite of considerable research in this area of learning, they are failing in the present. On the other hand, the evidence indicates that teachers, because of indifference, lack of preparation, or failure to apply research in spelling, are failing our youth in the teaching of this skill, which has long been, and still is, highly prized in our society. Hence it may be contended that there isn't anything so wrong with the present generation of poor spellers that a good teacher and a good dose of teaching at all levels, elementary, secondary, and college, can't cure.

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"There isn't anything so wrong with the present generation of poor spellers that a good teacher and a good dose of teaching . . . can't cure."

Some techniques to solve
the dichotomy
between the community
with its stable patterns
and the administrator
with his educationally
progressive values . . .

The School Administrator and His Community

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Our history books tell us that, at certain periods, men have endeavored to cut themselves loose from the ties that have bound them to their old existence, believing that they could start life entirely over again. They tell us this about the pilgrims who braved the ocean to come to the New World, and they tell us this about the pioneers who crossed the continent. But when we analyze the record more closely, we find that this romantic interpretation is far from correct. There is a continuity in the affairs of men, and no man finds himself in a position where he can erase the influences that have pressed upon him.

The Mayflower Compact was written by Englishmen, who were acting in accordance with their traditions as Englishmen. The culture, the customs, the values which they brought with them were English. The love of freedom and the spirit of independence were not created anew on our shores. It was brought here, the product of a long history of men who were reared in a tradition that made them refuse to be either the spiritual or the physical slaves of others. The particular conditions under which their lives were structured here caused that spirit to grow, develop, mature, so that the unique features of it became our particular heritage.

In the same fashion, when the pioneers crossed the Mississippi, braved the plains, and conquered the mountains to descend into the fertile valleys of the Pacific Coast, they brought with them things that became the foundation upon which they were able to build their lives in this new land. If ever a culture was transplanted, the New England culture certainly was made to blossom on the Pacific Coast.

Due to the sparsity of western settlements, the decentralized New England school organization was readily adapted to the needs of the new life in the West. The state remained responsible for education, but the state found it necessary to delegate the power to educate to the people of each locality. Predominant in this tradition was the fact that each school district could establish its own policies in accordance with its local needs and values, restricted only by general framework imposed by law.

Inevitably, local values were reflected in the programs of public education, and through the continuation of the town-meeting sort of management, local residents developed a feeling of proprietorship over their schools. It was they who donated the time to build and maintain the schools; it was they who determined the curriculum, established the salaries for teachers, decided how much they would be taxed, and supervised the program. It was they who established the feeling that the habits of the teacher, who spent the school year boarding around, had to be better than the habits of the rest of the citizens of the community.

These local residents resented any efforts toward centralized control, and they looked upon any endeavors to dictate policies or to determine procedures from sources outside of the community as dangerous encroachments upon their rights and liberties. America meant local control to them, and they kept their schools close to their hearts. They saw politics invade their large city and state governments in the period following the Civil War, but they wanted only the politics of the strictly direct, local, rugged sort for their schools.

Three Trends

In spite of the ingrained culture of almost a century, the twenties and thirties saw a remarkable development catch up with public education. American faith in education was bearing fruit, and more and more the educational program was reaching deeper into the strata of American society. Industrialization on a large scale had come of age, and the requirements for technical skills made higher levels of educational attainment essential. In addition, urbanization brought with it new types of social problems, so that the very process of coping with the milieu demanded more education. Three trends developed, all of which violated the cultural traditions in which most of our small, stable, rural communities basked.

First, the state was called upon to assume a greater responsibility for the financing of public education. Education became too expensive for the local communities to bear the whole burden, and significant differences in wealth were the basis for many inequalities in educational opportunities. But generally speaking, as the states began to provide funds, they also imposed some sort of standards, for the entire state was now interested in the quality of the educational program on every local level.

Second, the one-room school could no longer do the job imposed upon it. Better roads and faster cars made neighboring communities with larger populations the centers for trade, recreation, and interest. In larger consolidated districts, schools could be operated more economically and with greater educational advantage. With the passing of the small village school, however, there also passed much of the direct control by the people. Since

the administration of the schools was more remote from their lives, the people did not have the direct contact with policy determination that they formerly had.

Third, this era saw the professionalization of school teaching and particularly of school administration. The problems of operation and administration had become so complex that the local farmer who was very successful at his own work was no longer technically qualified or competent to deal with all the problems that confronted the schools. A person trained for the job of school administration was required, and he became the advisor of the school board and the administrator of the schools when the board was not in session. Here was a new sort of dilemma. The school board was charged with the responsibility for the administration of the schools—but this was a task that the members could no longer perform without competent, professional assistance. Here was a case where the board of "amateurs" was charged with the task of determining school policies which a professionally trained and skilled administrator was delegated to carry out in practice.

Even the job of the school teacher became more complex, for she could no longer go into the job after graduation from high school and a few weeks in a teacher-training course at normal school. She had to have a college degree and be trained in child psychology, educational methodology, audio-visual aids, curriculum, and the subject-matter disciplines.

The Conflict

This is what has been happening from the professional point of view. But now, let us look at the community, still located in a rural area, still having a stable pattern of social relationships, still clinging closely to some of the customs and values that are claimed to date back to pioneer origins. There is usually some stable power factor in the community which mediates all proposals and problems through the enduring policies that have governed the community for a long time. The people in the community—at least the oldtimers—are mindful of their history, and when issues confront the community or the school board, there is usually someone who can recall nostalgically how such problems were handled when the voters drove to the schoolhouse in a wagon and tied their horses to a hitching post.

There may be new elements in the community now, but these probably moved in within the past 15 years. These newcomers still haven't lived long enough in the community to be considered well-established members of it or to have been tested for admission to the innermost circles. One has to live in an American community for a long period of time to accept all of its values, to know its history, to understand the significance of community mores and the total impact of the environment upon its life. The people of the community have been structuring their social patterns in certain ways for a long time, and, in gen-

eral, they still find these patterns satisfactory. If this picture doesn't exist, if the newcomers outnumber the oldtimers and are in the process of "taking over," then there is already bitter conflict within the community and the school people are very likely to be caught in the center of the maelstrom, not knowing which power factor is going to control things next.

What happens to our professional administrator when he comes into the community? He has probably been graduated from college and has had some teaching experience elsewhere. He has a better than average intellect, and he is both eager and ambitious. He has been trained for his job, and he wants to make a name for himself. The situation is full of challenge for him. But there are some other characteristics about him that should also be noted.

Administrator Characteristics

First, he is subject to the discipline of his profession. He knows that the profession has certain ethical standards and values, and these must be his. He meets with his fellow administrators, and they swap yarns about their experiences, their accomplishments, their experiments, their successes and failures—all in accordance with contemporary beliefs about what an administrator should do in meeting his responsibilities and in the guidance of his school. He sees the progress and success of the one who exemplifies most fully professional values and is able to demonstrate professional methods of operation—and, on the other hand, he sees the virtual ostracism of the "unprofessional" school man. He recognizes, as a consequence, that his ability to rise in the profession is dependent upon his doing a "good job"—which is defined as causing the values and goals of the profession to prevail in the schools within his community.

Second, he is dedicated to his profession. He believes that it is right, and although he may argue with certain trends, he knows that current educational practices are far behind the existent knowledge about how these practices should be carried on. He recognizes the educational loss that accrues from failure to do the job as adequately as it can be done. He believes in schools and in their expanding role within our society. And if he doesn't think that the educational function is a very important aspect of community life, then he probably isn't worth much as an educator. Believing in these things, he wants to keep in line.

Third, he is probably the rankiest of outsiders in the community in which he comes to work. The superintendent is charged with the administration of a very important community function in accordance with the stable policies of the community; he has the eyes of the powerful elements of the community focused upon him; what he does will have repercussions reaching into every home in the community—all of this, and yet he is an outsider. He is likely to be called "perfectionist," and the barber shop gang will change the nature of the stories they tell

when he comes in for a haircut. He is not one of the gang, and usually in small towns his tenure isn't long enough for him actually to become one, unless he is unusually apt in his political attributes.

Now the big question before us is this—what happens when these two come together—this community with its stable patterns and the professional educator with his technical competencies and his desires to see current practices catch up with contemporary knowledges and theories? You are probably fully aware of the answer.

Although the dichotomy that is here drawn is extreme, yet it exists in varying degrees, and each administrator has had some experiences that stem from it. The dichotomy is ably illustrated by a school board member who recently said: "Our great difficulty lies in the fact that the profession sends us an administrator who reflects their values to operate *our* schools." The insecurity of the administrator and the constant series of community dislocations that make his life unpleasant are well known. The fault is certainly not entirely his, but it is time that the educational profession became concerned about the development of techniques for working with the community in such a fashion as to avoid constant crises.

Techniques to Avoid Crises

Although there is no blueprint by which the dilemma can be generally answered, there seem to be some guideposts that are available to the profession if it wants to employ them. But each has to be employed to fit the particular needs of a particular community. If recent community studies have taught us anything at all, they have taught us that every community situation bears some resemblance to other situations, but at the same time it has unique characteristics. Every administrator has to find his own ways of working within each community.

First, the profession must find better and more effective ways for securing substantive community participation in the solution of the basic problems confronting public education. When does the administrator seek community participation and when does he usually ask for community discussion on school issues? When there is a budget to pass? A bond levy to put over? When a crisis has arrived? The answer can be found in the files of any community newspaper. When a decision of the board or administrator needs community support, a lot of concern is evidenced about community participation. The community is frequently asked to support school board and administrator conclusions, but the school board and professional administrator rarely asks the community to help arrive at decisions. Administrators have become so much interested in end results, that they tend to forget about processes.

The word *substantive* should be underlined again. It seems likely that the basic problem lies in the fact that professional educators have never come adequately to

grips with the community in the determination of educational goals and objectives. There can be no doubt but that the people in the stable community want to have good schools and will pay the bill for them. There is considerable evidence to suggest they want modern schools that will assist youngsters in meeting the practical problems of everyday life. But we educators tend to leap across the mountain tops rather than go down through the valleys. We use a lot of educational technicalities instead of the language that the people understand—and the result is that neither of us, professional educators nor community citizens, have adequately communicated what we really think, feel, and believe. *Substantive participation* means that the people plan from the very beginning with the professional educators and the school board—and then conclusions acceptable to all, a real consensus, can be achieved.

Second, there needs to be worked out a better means for developing a keener perspective of the relationship of the specialist in the administration of a public function (such as education) to the public. There need be no division between professional values and community values. When a division does exist, it is apparent that someone has failed adequately to communicate. The question appears to be one of *leadership* as opposed to *dictation*. The administrator of a public function is accountable to the public, and he is responsible for helping to make effective the public will.

Third, democratic leadership means working with people and helping them make decisions rather than imposing one's own formulae upon them. Modern educators have become adept politicians. They have learned to use political force, and for the most part it appears as though they are doing so wisely, but sometimes it seems that they are doing so with impunity, forgetting their roles as administrators. We want to take all our problems to the legislature, expecting the basic relationships between profession and public to be worked out by legislative fiat—and this is not working well in most places. The only leadership that is effective is that which helps a people realize their potential, which assists a people in formulating their decisions, which builds on existing values and policies, and which assists toward a reinterpretation of basic values in the light of newer conditions and problems.

Co-operation between school and community becomes a reality, in fact, when school administrators seek to understand the point of view of the community, understanding the historical roots of present attitudes and the processes of change by which new consensus can be achieved as an outgrowth of existing patterns. It is essential for the school administrator to have such a firm faith in democratic processes that he is willing to use them from the very beginning of the policy-determination process, rather than at the extreme end of it. This is the meaning of the role of the school administrator as *social engineer*, and, incidentally, a function of education in keeping grass-roots democracy alive.

Fundamental School Fund Accounting

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In few other areas of school administration is more difficulty experienced by the boards of education and the superintendents than in matters related to accounting for school money and property. The reason for the difficulty is apparent from a historical point of view, but the difficulty can be reduced if not eliminated in many cases. The boards of education are in excellent positions to assist in the reduction or possible elimination of accounting difficulty with public school funds.

The state superintendent of education in most states is required by law to prescribe appropriate financial accounting records for use in the school districts of the state and he is also charged with the responsibility of making such rules and regulations for their use and adoption as he may deem necessary. Among states having issued instructions for classification of revenue and expenditure accounts are California, Kentucky, Michigan, Minnesota, and others. However, the responsibility for a complete accounting for all school money has been transferred to the local school board on the theory that the local school board is the agency directly responsible to the taxpayer for all phases of the educational program.

The Need for Accounting Training

Even though the board of education is charged with the responsibility for a complete accounting, the board member is a layman. He has to rely upon others who are professionally trained in educational administration to perform the detailed work related to the school system's accounting function.

As laymen, many board members have been successful in the operation of their own businesses. As businessmen, they have found that the accounting system is one of management's most important and useful tools. They have also found that the usefulness of the accounting system doesn't depend entirely upon the forms that have been designed and described as the "accounting system." But they have found that the accounting system's greatest usefulness is provided when employees in the accounting department are trained and experienced in accounting. Technically trained, an accountant has an understanding of certain fundamental principles and procedures of accounting which have become generally recognized and accepted as authoritative in today's business world. The use of these basic accounting principles has served America's industry in every area of financial activity.

When the businessman takes his posi-

tion on the board of education, he finds that the employees of the school system's accounting department are not equally trained and experienced in accounting. However, he knows that fundamental accounting principles which support any system of accounting, whether it be industrial, governmental, or public school, begins with the analysis of each financial transaction in terms of debits and credits. When the board member reads literature in the area of educational business administration, he finds that school fund basic accounting principles and theory remain unexplored. It is in this area that the school board can be the primary force in the improvement of accounting procedures and practices for public school funds.

The board of education finds itself in support of the theory that people who teach literature, mathematics, chemistry, physics, biology, music, etc., in public schools should be required to meet certification standards for public school teaching. These teachers meet the prescribed standards by taking various courses offered in the fields of specialization. Why, then, is it not possible for the boards of education to encourage school business administrators to qualify themselves for school business administration positions by including a study which gives a basic understanding of the fundamental principles and theory of accounting?

A study of the course offerings of ten of the leading colleges of education in the United States reveals that no courses are taught to the prospective school business administrator in which there is a study of fundamental school fund accounting theory, principles, or procedures. Doctoral programs are offered and degrees are granted in the field of educational administration which do not include coverage of accounting principles applicable to school funds. Therefore, graduates of schools of education at all degree levels come to the tasks of school business administration ill-equipped for the responsibilities well known to be a major part of the task.

Typical of graduate school of education course descriptions is: "School Finance, Business Affairs, and School Property. Four hours. Topics to be studied: public support of education; federal aid; distribution of school funds; equalizing opportunities to children; financial accounting; records and reports; budget making; school costs; transportation; insurance; management of equipment and supplies; indebtedness; landscaping and beautification of grounds; operation and management and

maintenance of school property; good housekeeping." That's a lot to cover in four quarter hours. It is the only course offered by the graduate school of education administration which approaches the words "financial accounting." When analyzing the texts used for this course and the reference materials suggested, no attention was given to basic school fund accounting theory and principles. Businessmen know, however, that adequate accounting records originate through the analysis of each financial transaction in terms of debits and credits.

What Boards Can Do

What, then, can the board of education do in order to encourage prospective school business administrators better to equip themselves for the jobs that lie ahead? Unfortunately, the boards of education are forced to look elsewhere for help than to our colleges of education or education administration.

Institutions of higher learning do, in many cases, have schools or colleges of business administration. These schools or colleges rely heavily upon courses in accounting. Accounting theory, principles, and procedures which compose the accounting courses are the same principles, theories, and procedures which have served satisfactorily in all other areas of financial administration, both private and public. However, traditional accounting courses require long periods of study and are developed around private businesses organized as proprietorships, partnerships, and corporations. Courses in governmental accounting traditionally are aimed at the city, county, state, and federal level. The professional educator is entirely correct in his statement that there is a difference between a school system's accounting needs and industry's or other governmental unit's accounting needs.

Ideal Courses

Public school systems can gain for themselves the same accounting advantages that are presently enjoyed by other areas of public service through the development of formal courses in schools of educational business administration. Ideally, the following objectives are attainable:

First, a course in public school fund accounting must recognize that public school funds are administered in accordance with various federal, state, and local laws. Present elementary accounting courses do not serve this need efficiently.

Second, a course in public school fund accounting should teach analysis of financial transactions as they affect various kinds of funds traditionally used by public school systems. Funds used in the operation of public school systems may be classified, generally, as: the general fund; special revenue funds; working capital funds; bond funds; sinking funds; trust and agency funds; general fixed assets; and general bonded debt.

Third, such a course should require analysis of each transaction in terms of double-entry accounting which is based upon the theory of debits and credits as they affect the fund's asset, liability, fund balance, revenue, and expenditure accounts. An extensive study of literature

presently used in the field of educational business administration indicates that this basic accounting need is not effectively served.

Fourth, a course would show how, through the use of accounting principles applicable to budgetary accounts, school administrators can have financial controls as a result of comparisons and analysis of variances between estimated revenues and actual revenues and between estimated expenditures and actual expenditures.

Fifth, a course in public school fund accounting should include coverage of the accounting principles which apply in the

construction and combination of financial statements which reflect financial position and results of operation.

Sixth, many problems of school financial administration could be overcome through the proper use of those accounting principles applicable to encumbrance accounts.

By development of these basic principles of accounting which apply directly to public school funds, the student of school business administration can go directly into that phase of accounting for which he will be held responsible in the performance of his duties as a school business administrator.

EFFECTIVE ADMINISTRATION

ELDON READY

Superintendent, Griffith, Ind., Schools

Effective school administration engenders high morale and effective teaching. It means a live, ongoing organization where leadership is a function, not a position. It means a good learning situation for pupils and the satisfaction of accomplishment for teachers.

Ineffective administration produces low morale and ineffectiveness, as well as a static learning situation which generally gets worse instead of better. Apathy, discouragement, and lack of enthusiasm are characteristic.

In my opinion the following points cover the basic element of good and effective administration:

1. Work closely with your staff. Your decisions will be better if, before making them, you sound out the opinion and experience of others. Also, staff members will feel a more personal responsibility for applying and implementing decisions, rules, and so on, if they have helped formulate them.

2. Make changes, even good ones, slowly. Tradition is a strong force and reforms or changes imposed upon people quickly and without their participation are seldom wholeheartedly accepted.

3. Do not give a student council too much say-so. Legally, it has no authority whatever. Retain veto power and, in any case, do not let a student council encroach into areas that are properly the jurisdiction of the teacher and principal.

4. Delegate responsibility to people willing and able to assume it; once delegated, interfere as

little as possible.

5. Remember that your staff means all of your teachers. Try to establish friendly relationships with all teachers and try to develop an equal understanding and appreciation of all departments.

6. With the counsel and co-operation of the staff, adopt basic behavior rules and policies. Since it is not possible to make rules for everything, it is probably wise to agree on what constitutes acceptable behavior and to proceed within this framework rather than to attempt too many rules.

7. Always find time to listen to teachers' suggestions and/or complaints.

8. Be seen—spend much time out of the office. Be of service whenever possible—in little as well as big things.

9. By your own alertness, example, and sincerity, aim to get the best efforts from every teacher everyday. Commend, encourage, and counsel whenever warranted.

10. Realize that in true democratic administration your own ears will be red sometimes. But if you turn these occasional instances into learning situations for yourself, you place yourself in a solid moral position to really function as a leader.

11. Make available to teachers at all times, via teachers' bookshelf and magazine rack, current booklets, articles, and studies pertaining to educational and related areas.

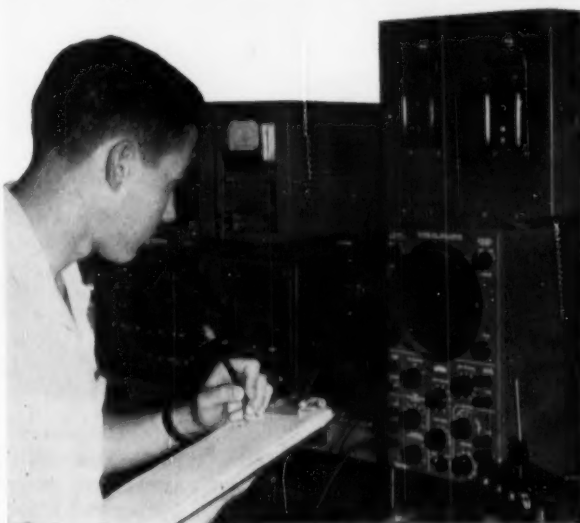
12. Be official without being "officious."

Let's Discover and Develop Our Resources

**A fundamental three-point school program
to help relieve the scientist shortage:
early discovery of potential scientists;
better sale of science careers;
and thorough provision of the proper
environment . . .**

MORRIS A. SHIRTS

Principal of Brigham University
Secondary Laboratory School, Provo, Utah



Much has been said in recent months about one of our nation's most critical problems—the shortage of scientists. Reliable reports indicate the supply will not meet the demand. In the process of warning the nation of impending disaster because of a shortage of scientists, the finger of blame is first leveled at the university. Here the old game of “buck passing” begins. The college teacher excuses himself and directs the blame to the high school by claiming that the student arrives in his classroom too poorly prepared to succeed. The high school teacher, in a logical move of self-preservation, absolves himself by leveling a blast at the elemen-

tary teacher claiming that the children aren't getting a good start in academic achievement. The elementary teacher, not having another professional group to carry the “hot potato” blames it on inadequate facilities and the lack of public and parental interest in education. There the problem smolders to be fanned by rumors of war, the technical achievements of potential enemies, and warnings of contemporary prophets—some of whom know what they are talking about.

A Team Effort

This problem is serious enough that it merits more consideration than “lip

service” or “buck passing.” Educators must face this problem realistically and accept the responsibility of instructing our nation's youth and adequately preparing them during this time of impending peril. The home cannot assume this task in our modern society—this has been entrusted to the teachers; not just those in the university or high school, but those of all our schools of all levels. We must all share this responsibility. Our teachers have done an excellent job in the past and are doing an excellent job now. We take pride in having played a major role in the advancements our nation has made and feel that good teachers and good teaching are to be credited in a major way for this progress. There is every reason to be optimistic about the ability of our teachers to meet the present challenge of producing the nation's future leaders. The teachers have done an excellent job in the past and can do now.

The cultural level of any nation is reflected in the emphasis and importance the people of that nation place on education. The leaders of this nation want more emphasis on the science element of our curriculum. Since our educational program should be geared to the needs of our nation as well as the needs of the individual student, there is no reason why we cannot produce the scientists we need. It must be a co-ordinated effort however. All the horses on the team must pull together.

We must realize, however, that not all of our students want to be scientists. We must respect their individual interests and abilities and realize that the majority of them will not become scientists. Some of them do not have



The effective science teacher exerts his influence at the critical time when career decisions are being made; more intimate association between the teacher and the high school students would strengthen considerably the scientific potential of our country.



If colleges would encourage their prominent young scientists to enter the teacher profession, the quality and quantity of scientists would increase.

the ability or the attributes of a scientist. Many of those who do, may not elect science as a career. We have the plants and the technical crew, but we are not discovering and properly utilizing the "raw materials." In order to meet this challenge, there are three basic steps we must take.

Early Discovery of Potential Scientists

1. We are not doing all we can do in our counseling and guidance services. Each school should have an organized and functioning counseling and guidance program whereby the abilities and potential of each student can be accurately determined; then the coursework patterned accordingly. If this could be done, the potential scientist could be discovered and encouraged to follow the paths leading to a science career. This is not a new principle. We have known and attempted to do this for years, but because of insufficient funds and facilities, the program has been neglected. It has not been well established and is practically nonexistent in the elementary school. This is partly due to the fact that the potential and abilities at these early levels is much more difficult to determine. Much research is yet to be done in this area.

The lowering of the university entrance requirements the past few years, has also taken its toll in the effectiveness of the high school academic program. We graduate many students each year who, according to their high school academic achievement, should never attend college. It seems to be human nature to follow the pattern of least resistance, consequently most of our high school students do not take full advantage of the high school academic offerings necessary to build foundations adequate for success in college. They enjoy themselves in high school and are not worrying about college entrance

requirements. If these entrance requirements were increased, high school students planning for college careers would do a better job in their high school work. The program of studies is already available if they would but take advantage of it.

Sell Science Careers

2. As educators, parents, and interested officials, we have done a very poor job of selling science careers to our youngsters. At one time or another, most parents hope their children will become medical doctors, simply because the position of the medical doctor in the community is respected and is financially rewarding for services performed. How many of us encourage our children to enter other science careers such as research, engineering, or the teaching of science? Our knowledge of occupations is totally inadequate. It is impossible to give occupational guidance and advice to young people with the present attitudes and circumstances.

Most rural and many urban schools never see a real, live scientist. They only read of their results. We could accomplish much more in our classrooms if research centers and universities were to institute a program providing for the inter-change of ideas and interests with the secondary schools. This would involve visits on a regular basis of the nation's leading scientists to the schools to present the problems of research and development to the potential scientist. It would also involve visits by teachers and students to the research and development centers where the aims, objectives, final products, and problems of current and past research could be unfolded.

Colleges should encourage more of their brilliant young scientists to enter the teaching profession. For years they have been guided into the high paying,

more glamorous jobs and the less capable ones sent to the college of education to be prepared as teachers. This practice is now reaping diminishing returns in the number of adequately trained science potential. Colleges and universities who have encouraged this practice cannot focus the blame for insufficiently prepared students on the secondary schools, for each student truly reflects the influence of good or poor teaching. Fortunately, the teaching profession has managed to produce some high caliber teachers in the past, but not nearly enough.

Provide the Proper Environment

3. Many of the environmental elements necessary for academic success in a school are practically nonexistent or totally missing in many schools. There is a shortage of capable, willing, and well-trained teachers. We have a shortage of proper equipment and insufficient emphasis is being placed on the science curriculum. The success of any scientist is directly related to his knowledge of mathematics since mathematics is basic to all science and all research. Yet, time after time, the attitude is taken among school administrators, that "anybody can teach math." In many cases, teachers assigned to teach mathematics do not have the proper background, and the mathematics courses are assigned as the teacher's extra classes or used to balance the loads of physical education, English, or social studies teachers. As a general rule, school administrators dislike this situation, but because of the teacher shortage, finances, facilities, or other reasons, they have no recourse but to use ill-prepared teachers in these areas.

The equipment and facilities found in the average school to facilitate the teaching of science is very meager and often nonexistent. The armed forces and industries spend millions for training aids and devices such as mock-ups, models, charts, pictures, etc., to do a more effective job of instruction. We do not have a comparable parallel in our schools system. Insufficient research has gone into the development of new teaching devices and techniques. Those that are available have been developed by private industry for their commercial value and often do not meet the needs of the classroom. Time after time, school administrators have had to tell teachers that teaching devices already available could not be provided because of an insufficient budget. There seems to be a feeling that the story of Mark Hopkins, "The Boy and the Log," still describes a desirable classroom. If we are to raise the level of instruction and capitalize on the full potential of our present teaching staff, desirable facilities and equipment must be provided.

Basic Principles of New Teacher Orientation

PAUL E. CABLE

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Basic principles are extremely important in all areas of life, and yet very few statements of the basic principles of orienting new teachers are found in the current literature. It would seem that programs of adjustment without a foundation on which to build, or a framework within which to work, would soon collapse. Some bases of general agreement should be discovered and followed to insure a well-balanced and constructive program with a reasonable chance for success. Applying basic principles will aid in realizing this success.

Principles Insure Good Relationships

Principles used as guides to action will offer a springboard to insure good relationships among faculty groups. Recognizing this idea, the Bureau of Job Relations of the War Manpower Commission admonished its supervisors to keep basic principles in mind to insure good relationships when they paid great dividends. Magnificio urges educational leaders to use similar techniques in the area of teacher guidance. The principles were simple indeed, but quite useful in practice. They are stated briefly as follows:

1. Let each worker know how he is getting along.
2. Look for extra and unusual performance and give credit when it is due.
3. Tell people in advance when changes will affect them. Tell them the reason for change and try to gain acceptance for it.
4. Make the best use of each person's

ability; look for unused ability and use it.

Understanding the Whole Teacher

From many sources we have heard the plea of educators to consider the whole child in the learning process. Indeed we should, although perhaps many of us have taken it lightly. However, if this is our belief then I make the plea to understand the "whole teacher" regardless of your position on a faculty group. This consideration seems basic to over-all guidance and teacher effectiveness. Much of the same type of guidance given the teacher will be reflected in the teacher-pupil relationship. If a teacher is to be expected to be a successful guidance person, it seems naïve that she should be excluded from a wholesome guidance process at her own level.

Tragic indeed is the fact that many teacher's needs have been discovered and then, in many instances, almost totally disregarded. In a recent study of 104 new teachers in 21 Alabama schools the author found the following problems of most significance:

1. Inadequate salary.
2. Problems of specific assignment, such as lack of equipment and student problem cases.
3. Learning administrative routines and procedures.
4. Discipline policies of the school.
5. Overload of pupils.
6. Teaching space.

IN ORIENTATING YOUR NEW TEACHERS, YOUR PROGRAM SHOULD BE:

- Conceived and carried through in democratic fashion by all who stand to be affected by it and are capable of making contributions to it.
- Aimed at the ultimate goal of improving the learning situation for children.
- Developed with secondary goals, aims, and purposes clearly set forth and understood.
- Adapted to the school system and the individual school.
- Timed in order to meet the adjustment needs of new teachers when it will be of most benefit to them and their situation.
- Based on the best research available.
- Subjected to continuous evaluation for the sake of constant improvement.
- Supported fully by the major policy-making body of the school district.

7. Evaluating pupil progress and reporting to parents.

New teachers should be known as fully and completely as possible. They are more than mere employees. They are unique personalities and new and contributing acquaintances. They have had different experiences from which we can profit; they have aspirations and their unique abilities can be used; their attainments may be cited as examples for others; their travel backgrounds may prove vital in many areas; and their avocational interests may be utilized by the larger community. Truly, we should know the teacher more fully, for he, too, is a contributor to the general furtherance of our goals.

A Local Responsibility

The orientation program is a responsibility of the local school system and the individual school. Teacher education institutions are so far removed from the local scene and the local problems of individual schools that their contributions to new teacher adjustment are, in the main, very often vague and general. Teacher institutions have played some productive roles but their over-all effectiveness in many local situations is of little consequence. The orientation program, if it is to serve its purposes truly and constructively, must truly be tailor-made for the school in which it is to be practiced. Why shouldn't we practice the principle of individual differences at this level too?

Basic principles of orientation should grow out of a response to a definitely felt need, and one which is accepted by the total group on which the effects will have bearing.

The inclusiveness of the program should be readily recognized, but a consideration of too much information and material should also be given consideration. Orientation activities should be carefully selected so that new teachers may find meaning and purpose in them. Questioning new teachers will soon reveal the need for carefully selected activities to be presented with a great deal of emphasis on timeliness, sequence, and continuity. Let us be sure our novice has what he needs, but at the same time let us not "swamp" him with an overdose of orientation.

Large numbers participating in an orientation program in Saginaw, Mich., seemed to add an additional element of interest not otherwise gained. Included in these programs were Manufacturers' Associations, Merchants' Associations, various unions, and the use of extensive surveys and analyses. A report contended these activities were basic to the formulation of a program suitable for everyone.

Realizing that professional and personal adjustment should not be left to chance we should use the experiences of all teachers and the whole system to help assure success for our new arrival. We must use every avenue of possibility in molding a competent, well-adjusted, and happy teacher.

Many service organizations, clubs, and institutions offer their services in the ad-

CIVIL SERVICE DEFECTS: RELATED TO TEACHER RECRUITING?

Leona Baumgartner, in a criticism of civil service methods, published in the *Good Government Bulletin* of the National Civil Service League, calls attention to four major defects in current civil service thinking and practices:

1. There is entirely too much emphasis on keeping the unqualified and incompetent out and not nearly enough emphasis upon attracting to public service the promising, the talented, the gifted.

2. There is so much rigidity and inflexibility in procedures, particularly in the advancement and promotion process, as to discourage the

more vigorous, more competent, and more imaginative employee.

3. There is far too great a reliance upon the written, competitive examination as a measure of a person's talents and capabilities.

4. There are insufficient incentives and rewards for bold, imaginative, creative effort.

Mrs. Baumgartner recommends that as a first step for improving the service of public employees, a careful evaluation be made of present procedures and practices in recruiting qualified people and in holding topflight professional persons in government services.

justment process for new teachers. The newcomer needs all possible information about the community as well as the school system and his immediate position. Personal conferences may be necessary to supplement many other of the varied orientational services to be found in the community.

A constant flow of information is advocated by the American Association of School Administrators in a recent yearbook. This flow should proceed through an open channel between school officials and the newly appointed teacher. The all-inclusive ideas seem supported by their recommendations to use workshops, advisory councils, seminars, observations, and demonstrations as additional means to affect the more satisfactory orientation of new teachers.

Some Suggested Principles

General principles of new teacher ori-

entation are necessary to insure the development of techniques, practices, and procedures which will accomplish the goals and purposes for which the orientation program is planned. Educational leaders should always examine their methods of implementation by referring to general principles and their application in specific situations. Therefore, the following list of general principles is recommended as basic to all programs of new teacher orientation:

1. The orientation program should be democratic in character involving the co-operation, thinking, and planning of all who stand to be affected by it.

2. The orientation program should be aimed at the ultimate goal of improving the learning situation for children.

3. The orientation program should be developed with secondary goals, aims, and purposes clearly set forth in advance and thoroughly understood by those who are charged with the responsibility of implementing the program.

4. The orientation program must be timely in order to meet the adjustment needs of new teachers at the time when it will be of most benefit to all concerned with the school.

5. The orientation on programs should be carried on by all persons who are interested in and capable of making contributions to the most expeditious implementation of the program, and the most satisfactory adjustment of the new teacher.

6. The orientation program should be a child of the initiative of educational leadership everywhere.

7. The orientation program should be adapted to the school system and the individual school in the most expedient manner in order to affect reaching the ultimate goal, and secondary goals, aims, and purposes.

8. The orientation program should be based on the best research available in the field of education related to it.

9. The orientation program should be fully supported by the major policy-making body of the school in which it is in effect.

10. The orientation program should be the object of continuous evaluation for the sake of constant improvement.



SOUTH PLAINFIELD, N. J., BOARD OF EDUCATION

Serving one of New Jersey's most rapidly growing towns, whose school population has doubled to 2850 students in the last seven years is the South Plainfield, N. J., board of education. Recently completing a two million dollar junior-senior high school, and constructing and planning two large elementary schools, the members include, from left to right (standing): Fred Reinbott; Fred Klinier; Frank Stavish; William Regan; James Kane; Joseph Mondoro; (seated) E. Perley Eaton, superintendent; W. Wallace Embley, vice-president; Albert Ryno, president; John H. Hagen, secretary and business administrator; and Mrs. Rudolf Graessle.

If your community keeps "looking for the federal aid handout,"
a direct approach might encourage—

Local Responsibility to Support the Schools

G. A. SMALLING

Director of Planning and School Plant Construction
East Baton Rouge, La., Parish Schools

The will of a local school district to cope with its own problems for needed expansion in physical facilities appears increasingly to be a factor which, like other phases of municipal support, is vanishing from the American scene. With every session of Congress, there is revived the discussion of federal aid to education and federal financial aid to local school districts to help them overcome their obsolescent and/or overcrowded schools.

To add to the confusion of the average taxpayer at the local level, practically every meeting of state legislatures is confronted with the problem of attempting to assist the poorer economic areas in "equalizing educational opportunities for all youth."

Local school boards and local administrators are eternally aware of the fact that it becomes more and more difficult to sell the local taxpayer on the need for local support and the desirability of local school districts bearing their own burdens.

Administrators on a nationwide basis are sensitive to the feelings of local taxpayers who wish to delay voting local taxes until "we see what the state and federal governments do."

The problem of equal assessment varies from district to district within states and between states on a nationwide basis—probably to an even greater degree than does the quality of instruction in these districts.

It does, therefore, become very meaningful for every school board and school administrator to assist in the evaluation of the particular local situation in view of their "ability to pay." The story is not complete when a local district complains that it has reached the limit of its tax load when an examination shows that there is actually little relationship between assessment and actual current market value.

Standing Up to Local Problems

Occasionally, a local school district will evince sufficient courage to stand up and be counted on local problems. We believe readers will agree that such is the case in

Baton Rouge, La. East Baton Rouge Parish (including the city of Baton Rouge) has just completed its second consecutive school building program expending a total of approximately \$25,000,000. However, the phenomenal growth of this school district has far outstripped the projection of local educators and professional planners and estimators.

It became apparent in the spring of 1956 that the so-called second building program was but a step in a continuing building program. When school officials became increasingly concerned with the influx of new people into Baton Rouge and the attendant increase in school enrollment, the local school board in East Baton Rouge Parish (the parish system in Louisiana is the same as the county system in most other states) began a series of evaluation studies to de-

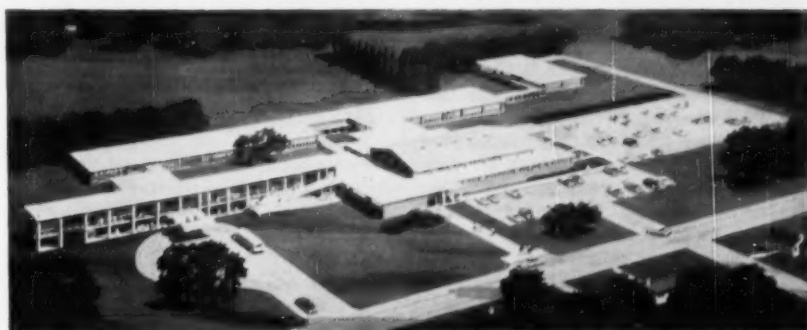
cide what seemed to be the best thing to do.

There were, of course, the usual statements about the amount of money which the taxpayers would support. It became apparent, however, after several meetings that the only honest, fair, and accurate way to define the needs was to keep open minds and put the facts together. After several months of study, the facts indicated that a sum of \$46,500,000 would be needed to remove 4500 students from sub-standard facilities and to house the minimum 15,000 new students expected over the coming five-year period.

Again, the usual considerations arose: "Can't we get federal money? Won't the legislature help us? Can't we go on a pay-as-you-go basis?" and "Will the taxpayers support a program of such magnitude?"

An illustration
of a typical citizens
committee
meeting in the
East Baton Rouge,
La., parish schools
is shown at the
right.

Below is a sketch
of a proposed
junior high school
in the district.



Carrying the Problem to the People

It should be stated here that admittedly there are areas which are unable to support programs which would provide desirable school facilities and that if equal educational opportunities are to be provided to all youth of the nation, these areas must have financial assistance. The main consideration that is being raised is: "Are we as a local group doing everything in our power to take care of our situation?" This consideration, when faced squarely by the school board of East Baton Rouge Parish led them to the conclusion that the needs were real, the facts were accurate, and there was no immediate relief from state or federal sources, so let's carry our program to the people and see if they are willing to bear such a load in behalf of the education of their children.

It should be borne in mind that the population of the city had increased 33 per cent and 138 per cent for the parish since 1940, and that many of the newcomers were either not property owners or were not entitled to vote on school facilities. At a time when it appeared that the \$46,500,000 figure would force the abandonment of the school construction program, the local school board became more and more determined to face the facts and carry the problem to the people. There were meetings with contractors, architects, realtors, appraisers, business and industry officials, school equipment suppliers of one kind and another, and John Q. Public particularly.

The technique of having representative citizens committees was nothing new. However, the approach was honest and direct. No punches were pulled. Strengths and weaknesses were examined and at the conclusion of the study those in attendance at the Citizens Committee meetings agreed unanimously to endorse the program to the taxpayers. A typical reaction from the representatives of business and industry was the statement from an oil executive, "You have presented the facts in a straightforward fashion. You have figures which indicate the need. The problem now is to convince the people. We are willing to help."

As the speakers from the Citizens Committees and local educators attempted factually to inform the taxpayers about the issues, there arose again the bevy of questions about the "handout." In every case, the real solution appeared to be in paying for what you get, and on this basis the P.T.A., the representatives of business and industry, and school personnel attempted to carry the program of needs to the people without any appreciable help from state or federal agencies. The theme for the campaign on information became, "Are we willing to help our children?"

This is not to intimate that the taxpayer did not complain in many cases and question in most cases. The querulous question

was not parried and soft-soaped but was compared in the light of critical evaluation with whatever particular scheme for support any and all might volunteer.

There were the usual statements that, "It will never pass." At that point there could be only one conclusion. "We will have to wait for the judgment and 'will to support' of our taxpayers."

The Program Approved

On October 16, 1956, the taxpaying citizens approved the program by a two-to-one majority in public vote and by an assessed evaluation margin of several million dollars. This was not easy to accomplish, but when the results were known the general feeling was, "This should show everybody that we can take care of our problems!"

The reader will, of course, be interested in another phase in addition to the \$46,500,000 construction program which pertains to maintenance of existing facilities. The maintenance proposition was carried to the taxpayers in the form of a request for an additional one mill of taxation to better maintain existing facilities. In examining maintenance costs for industries

of comparable investment whose avowed purpose was to make money for the stockholders, figures showed that about one tenth as much was being spent to maintain school property as was spent to maintain the business or industrial property. Again, a straightforward, businesslike proposition convinced the taxpayers that it was sound business procedure to better care for existing facilities. This one-mill tax (currently bringing in an additional \$320,000 per year) gained the support of the taxpayers along with the \$46,500,000 construction program.

What will this \$46,500,000 program and the one-mill maintenance tax buy? It will make possible 22 new elementary schools, two new junior high schools, one new junior-senior high school, two new senior high schools, 26 additions to elementary schools, ten additions to junior and senior high schools, and renovations to 68 existing schools, plus facilities for exceptional children, as well as expanded service and maintenance facilities. It will also include 144 new classrooms to be used in areas of sudden and outstanding growth.

The attention of the reader is called to the table of CONSTRUCTION NEEDS, Item 2, *Purchase of Sites During Third Program For Future*—\$800,000. Again, growth facts and estimates indicated that with our present rate of growth, the \$46,500,000 program is but a continuation of previous programs and that, if funds had been available with which to purchase sites needed in the \$46,500,000 program, good raw land might have been secured at a considerable saving to the taxpayer. No attempt was made to camouflage this amount under general site purchase, and business and professional people agreed generally with the idea of taking the long-range approach to adequate schoolhousing.

Accepting Responsibility

This Baton Rouge Story is a simple recounting of the acceptance of a responsibility by the citizens—the most significant idea of which appears to be, "The development of the will to meet our responsibilities to our children in so far as humanly possible."

Funds will be made available for this program through the sale of bonds—\$4,000,000 of which were sold on December 12, 1956, and brought an interest rate of 3.49406. This rate is considerably higher than that experienced on previous bond sales but apparently reflects a very good bid in the face of a rising money market.

The taxpaying citizens of East Baton Rouge Parish asked themselves the question, "Are we able to bear this burden?" The answer was, "Yes, we must!" If this same question is honestly asked of itself by every local school district, the next few years should witness the greatest public school construction program the nation has ever seen.

CONSTRUCTION NEEDS

To Provide for 19,900 Children in Proposed Construction Program

(Renovation of Existing Buildings and Construction of New Buildings)

1. Construction: To include new school buildings, additions to existing schools, expansions of facilities of present schools (lunchrooms, additional playrooms, storage facilities, etc.), and including auditoriums for existing and proposed junior and senior high schools	\$31,134,500
2. Purchase of Sites: 742 acres @ \$4,500	\$3,339,000
Purchase of Sites during third program for future	\$ 800,000
Total	\$ 4,139,000
3. Renovations remodeling, termite treatment, and general reconditioning of existing school plants	\$ 3,726,500
4. Land Improvements for new sites purchased above	\$ 1,456,000
5. Equipment: (Movable equipment purchased by board). Student seats, teacher's desks, office equipment, etc.	\$ 2,857,000
6. Service Center (Maintenance) and Office Expansion: Land, land improvements, dry commodities storage, maintenance warehouse storage, office building	\$ 390,000
7. Exceptional Children's Facilities (both white and Negro)	\$ 295,000
8. Contingency: (8% of construction total)	\$ 2,490,760
Grand Total	\$46,488,760

**A complete program
for intelligent
planning
of secondary**



Business Education Facilities

E. C. MCGILL

Chairman, Division of Business and Business Education
Kansas State Teachers College, Emporia

The importance of the relationship between efficiency of instruction and the planning and maintenance of physical facilities is often greatly underestimated. Thoroughness in modern education has placed greater demands upon the financial investment in instructional facilities. Planning for equipping individual rooms often runs into six figures and building costs now are thought of in terms of several million dollars. Since expenditures of this magnitude are being made, it becomes increasingly important that we see that the money will be spent for the best type of instructional floor space and equipment possible.

Many schools now recognize that establishing permanent planning committees for studying fiscal plant development is a necessary part of school administration. Such committees should be composed of individuals representing the different instructional uses made of the physical plant. The committee should also include someone representing the budget, artistic planning, building and grounds control, and architectural service. The request for all plant improvements and changes should clear through this committee so decisions can be made which will be in line with the following aspects of physical plant operation and development:

1. Building style and appearance.
2. Relationship of building location to all other aspects of plant and other buildings.

3. To insure the spending of funds on projects which are the most urgent.

4. So as to develop physical facilities which may serve the needs of a larger number of people or departments.

5. The committee should develop a long-range physical plant development plan.

A discussion of the major problems stemming from these aspects, which must be considered in planning physical facilities for business education, follow.

Location of Facilities

The classrooms for business and business education should be located in a section or block space which will permit them to be adjacent to one another. Since there are certain other departments that have more than a passing relationship to business education, the location of these departments should be close enough to encourage a good working relationship. The instructional areas, which in particular may be given special consideration, might include graphic arts, art, home economics (textiles), journalism, photography, economics, and English.

It may be a disadvantage or an advantage to locate the business department close to the administrative offices—if there is a likelihood of administrative clerical duties being diverted to the business classes, then such a location can be a disadvantage. However, if the administrative offices could provide

valuable work experience, such a location could prove very advantageous. The bookstore and similar facilities may very well serve as a business laboratory.

The business classrooms should be located away from other noise-producing departments.

Arrangement of Instructional Space

The classroom space should be arranged to demonstrate the practical aspects of business education. Office practice classrooms should be set up to duplicate office arrangements in so far as practical and still maintain effective classroom operation.

We may have run the cycle regarding visibility between certain classrooms in business education. The idea of having visibility between rooms so as to permit the business teacher to conduct two classes simultaneously is decreasing in popularity. On the other hand, access windows into laboratory rooms may be beneficial. Such windows should usually be high and only consume a relatively small part of the wall space.

The insulation in parting walls is very important. Some building materials such as thin porous blocks and fold-down partitions do not provide adequate insulation against room noises. Often, the use of porous blocks is an attempt to provide acoustical treatment. It is true that all classrooms should have treatment for providing proper acoustics. Typewriting rooms need much more

deadening surfaces than classrooms for other uses. Walls for large classrooms should not be arranged in parallel opposites unless there are baffles or alternating opposite surfaces on the wall finish. In order to deaden and at the same time carry sound, acoustical treatment should consist of alternating panels of acoustically treated and untreated surfaces.

The light in a classroom should be even and constant, which means that natural light should not be depended upon since it is not regular. In classrooms such as office practice, book-keeping, shorthand, typewriting, and other machine operations, a minimum of 50 foot-candles of light should be provided by using well-diffused tube lighting. Factors involving light and heat and ventilation are closely related. The latter should be provided through well-planned and controlled equipment. Ventilation should be constructed as a part of the heating system so as to provide a complete circulation of air. All ventilating systems should also provide for a continuous induction of fresh air into the circulation system. This is especially true in air conditioning systems. When it seems advisable to air condition buildings, it is best to install a dual purpose system that will both heat and cool the air which circulates. Water circulating systems may serve both purposes with less cost of construction and operation.

The amount of working space per pupil depends upon the use made of the room. Lecture rooms should allow a minimum of 15 square feet for each occupant while machine and laboratory rooms may vary between 25 and 35 square feet for each occupant. Usually, the most effective shape of rooms is rectangular. However, this should not mean that long narrow classrooms should be constructed — the rectangular arrangement should probably restrict the length to not more than one third greater than the width of the room. When good heating and ventilating systems are in use, ceilings need not be so high as has been past practices. Probably 10 to 12 feet may be considered as adequate unless special features in the room would demand otherwise.

Technical Equipment and Facilities

Electrical connections have become very important in classroom planning because many and varied types of electrically operated equipment must be used in business education classes.

Floors of classrooms to be used to accommodate electrical equipment should be channeled so as to permit the installation of capped flush electrical outlets under desks. Electrical

outlets may be installed in the concrete floors of old buildings by placing strips of lightweight subflooring substances over the concrete leaving space between the sections for electrical installations. New construction should carry heavy wiring so the load can be increased without creating a fire hazard.

Classroom planning should include space for closets, files, cabinets, work counters, bulletin, and chalk boards. Work counters can be constructed across the back or the unwindowed side of the room. Storage cabinets should be placed under the counters, unless knee space is needed for seating students who use the counter space.

Utility cabinets of all types for files, machine storage, supplies, and instructional facilities should be installed in side walls. The chalk boards should be located at the front and/or near the front of the room. Sliding chalk and cork boards should be constructed so as to permit advance preparation of instructional directives which may be uncovered as needed during the class period.

All classrooms involving the use of equipment and those designed for laboratory activities should have lavatories with both hot and cold water.

Master switches should be installed so as to control the flow of electric current to room equipment without having to control each work station on an individual basis.

Audio-Visual Facilities

Ideally, every classroom should be completely equipped for all types of instructional techniques. This means that rooms should be equipped with projection space and screen (this can be section of sliding chalk boards) and with darkening shades. Consideration should be given to the need for recording outlets and intercommunication equipment. Listening booths should be provided for machine transcription — not telephone style! Practice facilities in shorthand transcription should provide for the use of tape recordings or other devices which would permit several students to practice dictation at the same time. Provision should be made for providing recorded dictation practice at varying speeds and difficulties.

Special visual features will be needed in retailing and distributive education classrooms, and departmental reading rooms. It is much easier and less expensive to plan such features when a building is being constructed than as an addition at some later date. Consideration should be given to such matters as open and closed circuit television, type and kind of chalk boards, type and kind of display boards or

bulletin boards, counters, showcases, pamphlet racks, magazine shelves, and other features needed to make the business classrooms functional.

Work Space for Staff and Students

Faculty members should have an office space for housing personal reference materials, work desk, files, and records. This office space should be semiprivate — arranged so that not more than two, or at the most three, persons occupy the same office. There should also be a provision for a faculty lounge and rest rooms which provide opportunities for smoking, reading, and visiting over a cup of coffee. A counterpart of the faculty lounge should be faculty rest rooms which are conveniently located.

In planning work space, it should be recognized that some study space should be provided students which will not be occupied by classes during all of the hours school is in session. Typewriting, shorthand, and office machines in particular, require laboratory practice. The school should provide such laboratory practice space and equipment and make it available to students during the hours they are not in class. A departmental reading room should be provided. It should house clipping files, pamphlets, brochures, magazines, and special books used in the instructional program.

Summary

1. Buildings should be constructed so they may be added on to without disturbing existing plant.
2. Provide for heating, lighting, and ventilation, independent of natural sources.
3. Construct cabinets, counters, display racks, files, etc., as a part of the regular building plan rather than a place out in the floor as a later addition.
4. Consider insulation against noises and proper acoustical treatment for both deadening and carrying sound.
5. Make rooms large enough to accommodate all needed instructional facilities.
6. Plan special features carefully for shorthand, typewriting, office practice machines, distributive education, accounting, basic business, and others.
7. Include lounge and rest room space for faculty and staff.
8. Plan for the future in the use of audio-visual facilities.
9. Make the plans for equipment, room furnishings, size and shape of rooms functional.
10. Establish a planning committee to develop a school plant growth and expansion plan and then work in co-operation with architect and teachers who will use the space in building new space.

The moral responsibility of accounting
for your schools' funds . . .

INSURE AGAINST HIDDEN DISHONESTY LOSSES!

PHILIP P. LAING

Associate Manager, Fidelity Division
Aetna Casualty & Surety Co., Hartford, Conn.

Of two headlines appearing recently within the same state—"School Fire Damage Tolls \$150,000" and "Ex School Supt. Short \$74,000"—the first loss was completely covered by fire insurance, but the second cost the taxpayers \$74,000. The ex-superintendent was not bonded.

Because fire is a spectacular occurrence, it impresses school boards and administrators with the need for adequate protection against the monetary losses it creates. Few schoolmen realize, however, that in our school systems there are annually *ten times* more dishonesty losses than fire losses.

As long as a half century ago, the legislative bodies of most states recognized the necessity of requiring bonds on certain key officials. The school laws of most states demand individual bonds on the treasurer and on the collector and often on the clerk of school districts. Such bonds, known as statutory bonds, must be filed prior to the assumption of office.

During the past 50 years, however, and particularly during the past 20 years, the complexion of school business management has undergone radical changes. The modern school system, supporting a wide and varied educational program in larger consolidated districts and serving a school population quadrupled in less than a decade, operates with heavier expenditures and larger and more departmentalized organizations. These changing patterns in school organization present to all school administrators problems in finance, accounting, and *accountability* that were practically unknown a quarter of a century ago.

Accompanying these problems comes a major concern to boards of education: the strict stewardship not only for all monies and properties provided by tax dollars, but also for the monies and properties which

are a by-product of our modern mode of education. Hot lunch programs, transportation, athletics, student thrift programs, and various extracurricular activities are but a few of these by-products.

Who Should Be Bonded, for How Much?

All of these, plus the human stresses and strains caused by inflation have magnified many times the dishonesty hazards in the present-day school system. To every school board and school administration this hazard presents a challenge of deciding who should be bonded and for how much.

In finding an answer to this challenge, our experience in the bonding of school personnel indicates that there is no tried or tested method of accomplishing this task on a selective basis. Investigation of many claims has illustrated the truth that practically *all* school personnel handle or have access to school monies or property, including student funds for which the board has a moral, if not always a legal, responsibility.

Based on this experience, the production of a dishonesty blanket bonding program has been pioneered, adapted to the organizational requirements of each school system as the only sure way to make certain that protection will reach every area of potential dishonesty loss. These bonds cover any loss caused by the dishonest acts (theft, embezzlement, forgery, etc.) of the bonded employees, acting alone or in collusion with others. These bonds may be written in either of the following forms:

1. **Aggregate Penalty Form:** This form covers, up to the amount of the bond, any act or series of acts culminating in a single loss, regardless of the number of people involved.

2. **Multiple Penalty or Blanket Posi-**

tion Form: This form covers *each* bonded employee up to the amount of the bond. In other words, total coverage is represented by the amount of the bond *times* the number of employees involved.

These bonds indemnify the school system against losses caused by any or all of its officers and employees, whether compensated or not, except the official treasurer, tax collector, and such other officials or employees who are required to file statutory bonds.

Special coverage on students who are employees of the school system as well as on students who handle school funds or property in connection with student activities may be added to the blanket bond. While *all* teachers are automatically covered while performing their regular professional duties, including the regular additional duties imposed upon them by the board of education, superintendent of schools, or supervising principal, special coverage may be added on teachers while handling property or funds in connection with student activities.

The Cost

A recent survey indicated that the average cost of blanket bonding all employees in various school systems amounted to approximately 28 cents *per employee per year*. This compares with the cost of individual or schedule bonding of a *few* employees in the same systems at an average rate of \$6.40 per employee. The thought has been expressed that, if you could guarantee the honesty of each of your employees with a salary increase of 28 cents per year, it would be a good bargain. Lacking that opportunity, the blanket bond is a logical answer.

The following set of typical questions and answers developed at a recent seminar

of school administrators will explain the scope of coverage available:

Q. Only a few of our employees handle money. Why should we bond the rest?

A. When you say only a few employees handle money, you are undoubtedly referring to those whose regular duties involved the handling of money. A factual survey of your entire staff, however, will definitely prove that numerous employees handle incidental monies in varying amounts, such as:

1. *Teachers* supervising fresh-milk, student-thrift, vocational-training, athletic, and other programs; Community Chest, Mile-of-Dimes, Red-Cross, and Savings-Bond campaigns within the schools; class annuals and extra-curricular activity club fees and dues, etc.

2. *Clerks* (either regular or student employees) in principal's offices, receiving some or all of the above monies, and also fees and fines in connection with textbooks, special supplies, rentals of school facilities or property, cafeteria or hot lunch receipts, and petty cash funds.

3. *Teachers* of adult education courses. This bond covers not only loss of monies actually handled by an employee, it covers any financial loss of funds or property, suffered by the school system, caused by the dishonest or fraudulent acts of bonded personnel. Included in such types of losses would be:

1. Loss of school funds through forgery of checks or vouchers by bonded personnel.

2. Loss of funds or property through dishonest collusion between bonded personnel and outside suppliers, or even between the bonded personnel itself.

3. Loss of school funds through forgery of theft by employees, such as books, maintenance supplies, automotive supplies, and equipment, etc.

4. Loss of funds or property caused by dishonesty of bonded personnel who do not handle, but do have access to the same.

The Moral Responsibility

Q. Under the laws of our state, the board of education is specifically relieved of responsibility for the acts of its employees. Why then should we bond these employees?

A. We know of no laws of any state which relieve the board of education of the responsibility for safeguarding and protecting the funds and property of the school system or which relieves them of the moral responsibility of protecting the taxpayers against loss through dishonesty or fraud of school employees. The primary purpose of the dishonesty blanket bond of school employees is to protect the school system against financial loss caused by the dishonest or fraudulent acts of its employees. Such a loss is a matter of fact, and not one of legal responsibility. Just as members of the board of education would be considered negligent if they did not carry adequate fire insurance, so a diligent board of education should concern itself with protecting the school system against financial loss due to the dishonest acts of its employees.

Whether or not the board of education has a legal responsibility for the acts of its employees, any financial loss caused by the dishonest acts of its employees is covered by this bond, and is not subject to any court interpretation or action by an outside body. The blanket bond protects the board of education and the school system, and, upon pres-

entation of evidence of the financial loss due to the dishonesty or fraud of the school system's employees, payment will be made by the surety company. In this instance, the board of education is in a position no different from that of the board of directors of a bank who may not be responsible for the dishonesty of the bank's employees, but who are answerable to the stockholders for loss of the bank's funds due to the dishonesty of such employees. The board of education is responsible to a larger number of stockholders—the taxpayers.

Q. It is often difficult to positively identify the specific employee who has caused the loss. Does the bond still cover?

A. Yes, up to the amount of the bond. Even though it is not possible to positively identify the specific employee who has caused the loss, the bond still covers provided the evidence reasonably establishes the loss was due to the acts of an employee covered by the bond.

Q. While extracurricular student activities, student athletics, etc., are under the supervision of personnel of the schools, the board of education is not legally responsible for the loss of such funds or property. Does this bond cover losses in such activities caused by the dishonest acts of the bonded personnel?

A. Yes! Regardless of whether or not the board is legally liable, this company recognizes the moral obligation of the board to require an honest accounting of all funds and property handled by the school personnel, even if only in a voluntary capacity, so long as the board recognizes and approves such activities of the bonded personnel. For this reason coverage on members of the staff or personnel of the insured who handle funds or property in connection with student activities is available by special rider. This applies also to the handling of United States savings bonds and stamps and funds in connection therewith, which coverage is also available by the use of a special rider.

Student Personnel

Q. Does this bond cover losses caused by the dishonesty of students working in the offices, cafeterias, supply rooms, etc., of the schools, even if they are not compensated?

A. Yes! So long as such students appear on the school records as part-time personnel, even if not compensated, they are considered employees for the purpose of coverage under the bond.

Q. Does this bond cover losses caused by the dishonest or fraudulent acts of students handling school property or funds in connection with student activities?

A. Such coverage is available by a rider.

Q. Does this bond cover losses caused by maintenance personnel stealing school monies (milk funds, student fees, etc.) from desks of teachers or principals?

A. Yes! Thefts by any of the employees of the school system of monies under the jurisdiction and care of the school personnel for which the school system is accountable are covered by this dishonesty blanket bond.

Q. Does this bond cover losses caused by students who are not employees stealing monies from the desks of teachers or principals?

A. No! Such action on the part of students who are not employees constitutes a form

of theft which is not covered by this bond.

Q. How can we cover the superintendent or some other specific employee for a larger amount than the rest of the employees?

A. There is an additional indemnity rider available which permits specific additional coverage to be written on such positions.

Q. How may the premiums be paid?

A. Premiums on the blanket bond may be collected on a one-, two-, three-, or four-year basis, with appropriate discounts for prepayment of more than one year's premium.

Q. Must members of the board of education be covered under the blanket bond?

A. No! Members of the board of education may be covered under the blanket bond. Most boards, however, prefer to be named as insured on the bond.

Q. What is meant by "statutory officials and employees," and why can't they be covered under the blanket bond?

A. A statutory official or employee is one who is required by the statutes of the state to be bonded for faithful performance of his duties. Since the honesty form of bond specifically excludes officials and employees who are required by law to be bonded for the faithful performance of their duties, they may not be included under the dishonesty blanket bond. Some officials, such as the treasurer, tax collector, superintendent or clerk of the board of education are required to file individual bonds before assuming the duties of their office. This means that they must sign the bond along with the surety. To bond such personnel in any manner other than by individual bond would be a violation of law.

Q. Do we have to cancel present individual bonds now in force and lose the premium we have already paid?

A. No! A school board may either entirely exclude by rider those individuals who are now individually bonded, or it may exclude them until the expiration of their present individual bonds. If this latter course is followed, there will be a premium reduction.

Mandatory Bonding

During the past five years, several states, having recognized the complexities of modern school activities, have passed laws or regulations making mandatory the bonding of all school employees who handle monies or property. Their action may have been prompted by the thinking that was behind a statement made at a recent legislative hearing when a school official said: "Where there is smoke there's fire, and we can put it out. But where there is dishonesty, the only smell is that which occurs when the loss is discovered."

School board members might well be guided by the following statement issued by the insurance committee of the Association of School Business Officials:

"The principle of fidelity bonding is almost a universally accepted and approved procedure in the business world. The requiring of an employee to sign a fidelity bond is no longer considered as a reflection upon his integrity. We, as school business officials, therefore have a moral, if not a legal, obligation to protect public monies entrusted to our care from losses due to the dishonest acts of school employees."



Paxon junior high school

Strict observance to
principles of
economy is how
Duval County has
been successful in

Duval County, like the entire state of Florida, has experienced a tremendous growth in the past ten years; the percentage of school enrollment increase from 1950 to 1956 for Duval County was 45.1 per cent.

These statistics indicate the problem we face in providing classroom facilities. While the Florida state department of education — through a constitution amendment — has made available schoolbuilding funds, we must make all our dollars go as far as possible in providing the needed classrooms. There is nothing new in this, since all school systems must stretch the school dollar.

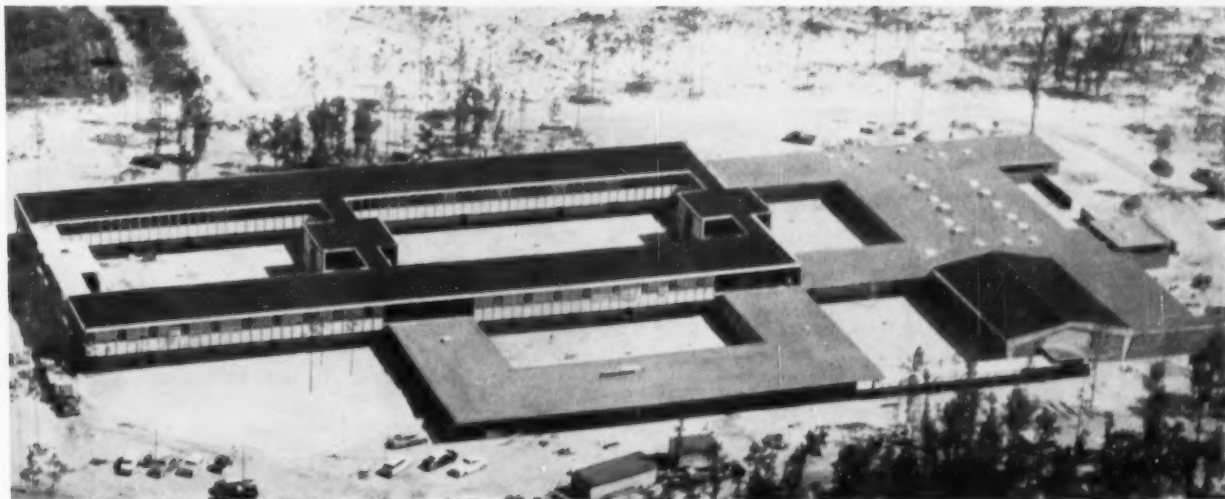
The real difficulty is to build new school plants today that incorporate all the needed educational facilities of the modern school and do it for a dollar or more a square foot less than was spent five years ago. This has been accomplished in the Duval schools shown in this article by strict observance to the 13 Principles of Economy in School Plant Planning and Construction.

—ISH W. BRANT

Superintendent, Duval County, Fla., Schools

Building Premium Schools on a Rigid Budget

Terry Parker junior-senior high school



DESIGN

In planning all seven of these schools, as well as eight more we now have in various stages of construction, the school board personnel, as well as the architects, tried to adhere as closely as possible to the "Thirteen Principles of Economy in School Plant Planning and Construction," as set forth by the National Council for Schoolhouse Construction. I would like to mention very briefly some of the ways these 13 principles were applied.

1. Selection: This first principle of selection was carefully considered in appointing the architects, in selecting the school site, and in the procedure for requesting bids.

2. Educational Planning: The educational planning for these facilities was conducted on each area concerned, rather than by the individual school. Educational specifications had previously been drawn up for elementary schools, junior high schools, and senior high schools. These educational specifications were reviewed and applied to this building program.

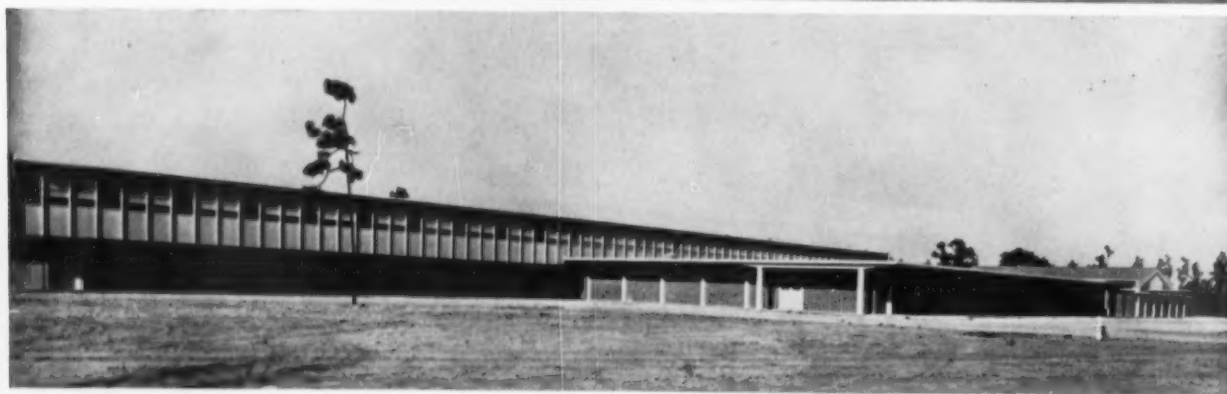
3. Usefulness: Careful study was given each separate plant to assure that adequate space would be provided each separate area in the school without jeopardizing the educational program to be carried on in that area or in the entire building. However, at the same time, we were very careful to make all spaces useful and not incorporate any waste space in the design.

4. Flexibility: Flexibility was achieved in all cases by the structural system used in each plant. There are no interior load-

The predominantly open and airy design of Duval schools is illustrated at the right in the front exterior of the Lake Forest Hills elementary school — Fisher and Burns, architects, Jacksonville. The striving for concrete and panel-wall construction with its minimum of maintenance to embody this design is illustrated in this view and in the front exterior of the Terry Parker junior-senior high school (below) — Reynolds, Smith & Hills, architects, Jacksonville.



The modern, yet practical and attractive, exterior designs of recent Duval schools are shown in these views of the entrances of the Englewood elementary school (above) — Saxelbye and Powell, architects, Jacksonville — and the library entrance of the Paxon junior high school (below) — Cellar and Klutho, architects, Jacksonville.



DESIGN

bearing partitions and in every case, the structural system has a steel and concrete skeleton. The arrangement of each individual room is made as flexible as possible to permit changes in the educational program when that becomes necessary.

5. **Expandability:** In selecting the sites for these schools, large sites were purchased to permit expansion of the building, as well as adequate outdoor play and instruction. Provisions were made in all plans for the expansion of all building utilities. The structural design was such as to make expansion very economical without the tearing down of any existing structure.

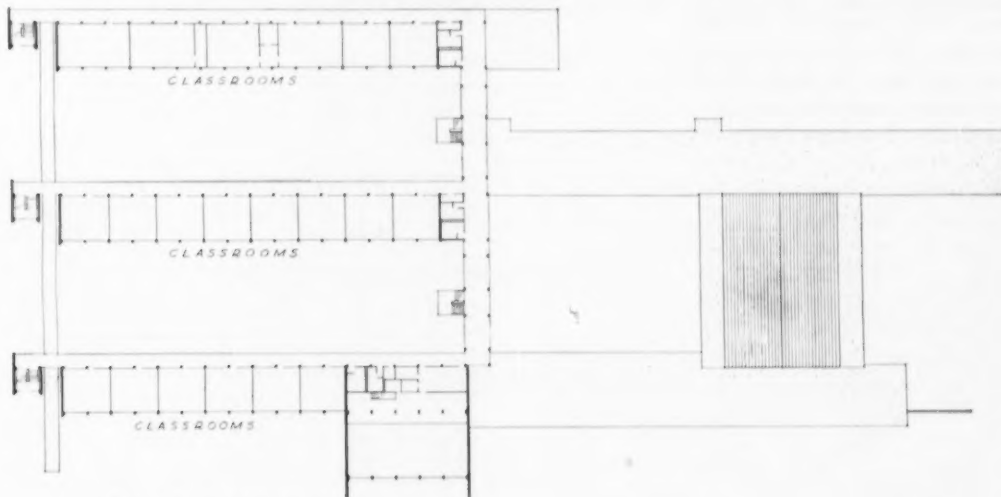
6. **Exactness:** In all cases, the plans and specifications were carefully prepared to give as complete information as possible to the contractors bidding these jobs. Bidding procedure provided

for adequate time for each contractor to review the plans and submit an accurate bid.

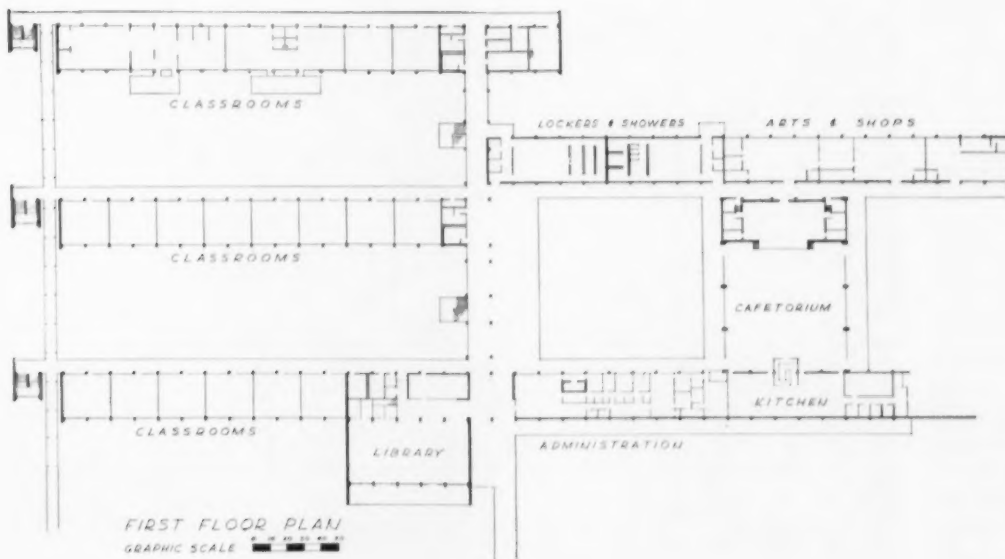
7. **Simplicity:** Simplicity of design was achieved through the establishment of standard shape supporting members which were repeated throughout the design as many times as possible. Ornamentation was held at absolute minimum. The structural system was used where possible to ornament or to decorate the exterior of the building.

8. **Compactness:** Even though most of these designs are single-loaded corridors which permit the optimum in natural light and ventilation, compactness was carefully considered in each case. There are very few breaks in the outer walls or in the roof line of any of these plants. The ceiling heights are those permitted by law in Florida which just prior to the design of these plants was lowered to nine feet. All classrooms are kept uniform in size for the program to be carried on in each.

9. **Multiple Use:** Not only are the classrooms designed to serve a number of educational functions, but the entire plant is laid out and carefully arranged to serve the educational needs of the children during the daytime and the community's needs at night or after school hours.



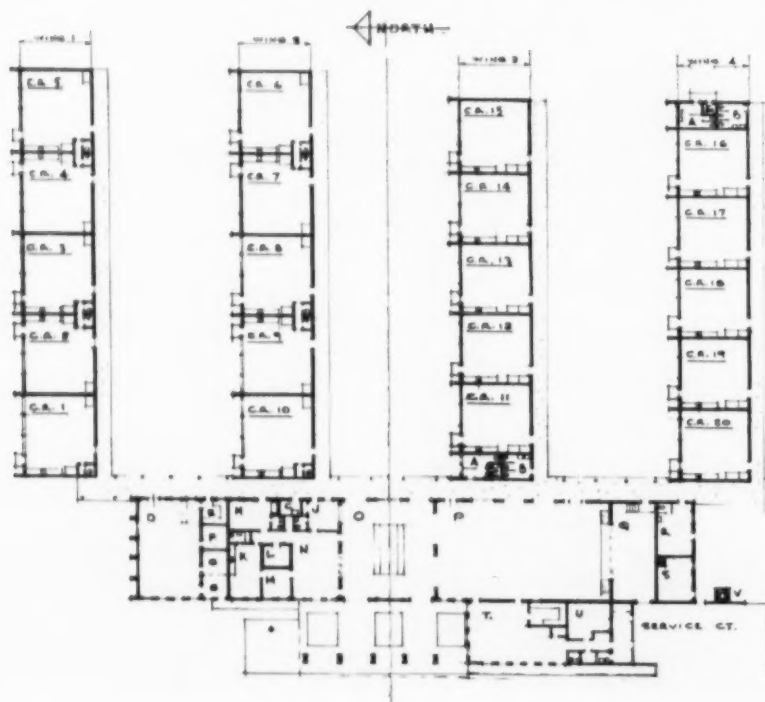
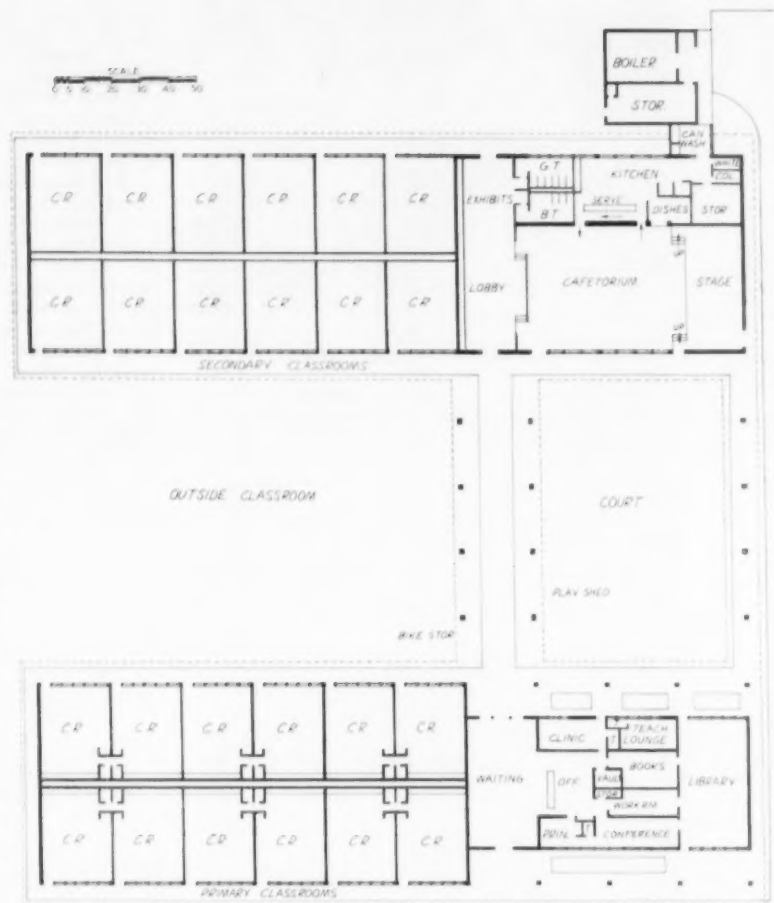
SECOND FLOOR PLAN
GRAPHIC SCALE 0 10 20 30 40



FIRST FLOOR PLAN
GRAPHIC SCALE 0 10 20 30 40

DESIGN

Two clever variations in the basic "finger" type of layout utilized in the Duval county schools are shown in these floor plans of two elementary schools: the Woodland Acres school (right) — Boardman, Ewart & Meehan and Hardwick & Lee, architects, Jacksonville — with its two back-to-back classroom wings; and the Windy Hill school (below) with its main administrative "palm" and four extending "fingers" of 20 classrooms. Its cost, typical of Duval schools, was \$332,380 or \$9.78 per square foot. Economy was extended in the corridorless Woodland Acres project by use of a modular reinforced concrete frame.



- LEGEND •
- CA. — CLASS ROOMS
 - A — BOYS TOILET
 - B — GIRLS TOILET
 - C — JANITORS CLOSET
 - D — LIBRARY
 - E — WORK ROOM
 - F — BOSS ROOM #1
 - G — CONFERENCE RM.
 - H — TRACHER'S LOUNGE
 - J — PRINCIPAL'S OFFICE
 - K — CLINIC
 - L — VAULT
 - M — BOSS ROOM #2
 - N — GENERAL OFFICE
 - O — LOBBY
 - P — CAFETERIA
 - Q — STAGE
 - R — STORAGE
 - S — BOILER ROOM
 - T — KITCHEN
 - U — KITCHEN STORAGE
 - V — INCUBATOR

ARCHITECTS
 MELVIN C. GREGGLEY, F.A.I.A.
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CLASSROOMS



Examples of the classrooms in the Duval schools are shown in the views of the Englewood school (above) and the (below) Woodland Acres project. Glazed upper windows, louvers, and ventilating fans combine to reduce the glare and the heat peculiar to the Jacksonville climate.

10. Modular Co-ordination: Modular co-ordination is practiced in both the structural layout as well as in the building materials used throughout the designs. In reinforced concrete structure, this permits the re-use of form work many times, and in windows, doors, chalkboards, etc., an economy has been appreciated by the use of stock sizes.

11. Repetitive Design: I have mentioned above how through modular design we have saved in the re-use of form work. We have tried to repeat the structural framing system as many times as possible in all these schools; however, I feel we were the most effective in the Lake Forest Hills School. This entire plant is roofed with the same size prestressed precast slab.

12. Durability: All materials used throughout each school were selected for their longevity. In almost each case, cost could have been out by using a material lower in cost initially, but higher in maintenance cost. All materials had been time-tested to assure us that the completed building would endure the ravages of time.

13. Prefabrication: The use of prefabricated units was defi-



Typical classroom of the 16 rooms in the Lake Forest Hills plant. Glazed brick walls, acoustical tile ceilings and asphalt tile floors, and awning-windowed curtain walls comprise the "standard" Duval interior construction.

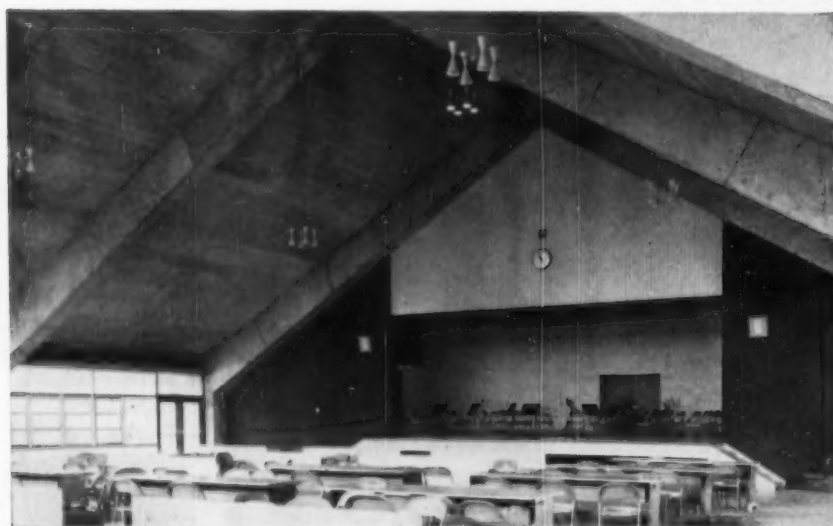


The cafeteria of the Stockton elementary school, shown above, is in the center of the plant's "H-shaped" plan and provides a "common room" and doubles as circulation space between the school's four classrooms wings and the administrative area. The prefabricated, specially designed steel framing was quickly erected and supports the roofing. Architect was Willis L. Stephens of Jacksonville. Below is a view of the Woodland Acres elementary school multi-purpose area.

MULTI-PURPOSE

nitely one of the methods of obtaining a school plant within the budget. We have used windows, window walls, doors and frames, chalkboards, roof decks, boilers, etc., which were prefabricated. In doing this our on-site labor costs were cut way down and a quality finish was guaranteed.

—ALBERT BROADFOOT
Supervising Architect, Duval County,
Fla., Schools



The novel and attractive Paxon junior high school cafeteria. It accommodates 450 per lunch-hour shift when used as a cafeteria and 800 when used as an auditorium. The steep-sloped roof utilized a precast and prestressed concrete construction.

LOBBIES-CORRIDORS



Appealing yet relatively maintenance free, the combination lobby and outer office of Duval's Woodland Acres school is open and inviting in an appropriately semi-tropical fashion.

The maximum use of open-air corridors embodied in the Duval schools is illustrated in these views of the area between two wings of the Lake Forest Hills building (right) and the Terry Parker junior-senior high school (below).

Note space-conserving placement of lockers under overhang formed by the second floor.





Residential in appearance and in setting, the Valparaiso, Ind., administration building has much to offer the small city in adapting its facilities, cost, and design. Warren S. Holmes, Lansing, Mich., was architect. Mr. Warren Phillips is superintendent.

Valparaiso's Administration Center

The Valparaiso, Ind., administration building, while residential in appearance, was designed and built to meet the peculiar needs of the office staff of the Valparaiso city schools. As the building progressed, it was evident that it would have dignity and graciousness as well as economy and efficiency. Furniture is in harmony with the color and materials. The building is acoustically treated. Floors are in green tile linoleum, except the board and superintendent's room, which is carpeted.

The building is placed on a one-acre site owned by the school city. The terrain is such that access to the basement is only slightly below grade. This area provides a vault for storage of school records as well as space for storage of instructional and janitorial supplies. A gas-fired heating and air conditioning unit provides year-round comfort. The main floor is of flexicore, which serves as the basement ceiling. An entrance adjacent to the parking lot in the rear of the building provides direct access to the storage facilities and the office area.

In addition to this building serving administrative and faculty needs, it is also much used by the community. The building is available for meetings of committees and groups such as the Education Committee of the Chamber of Commerce, the P.T.A. Council, and others. When the folding door which separates the superintendent's office from the board room is opened, seating space is provided for 30 or 40 people.

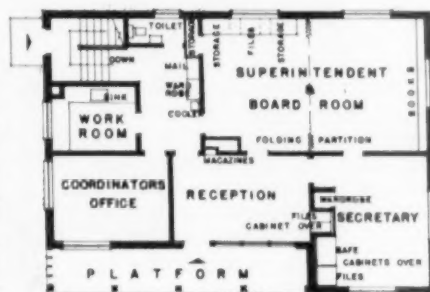
The completed building cost \$25,500, including furniture, parking lot, and lawn. This does not include architect's fees. Each floor contains about 1450 square feet. This area is sufficient to serve the school city for the present and provision has been made for future expansion as the city grows. Low cost was achieved in part by

the contribution of the 900 student hours —the interior was completed by the building trade class of the district—and the assistance of the community in obtaining low cost materials.

This type of building has much to offer to the small city in solving its problem of

administrative housing. Over and beyond its flexibility, its attractiveness and its economy, one of the real gratifications of the project has been the pride shown by the students who worked on the building and who feel that they have made a real and lasting contribution to the community.

The floor plan (right) of the administration center shows the room arrangement. A basement includes space for the heating plant and storage. The superintendent and board room (below) offers accommodations for 30 or 40 persons for community groups.



Prepare maps, determine policy,
arrange routes: a systematic
method is quite important in . . .

PREPARING BUS ROUTES

B. H. BELKNAP

Transportation Consultant, Delmar, N. Y.

Planning bus routes for enlarged school districts calls for detailed study quite beyond what is many times given to this phase of our school administration program. This school-community service runs into considerable sums of money. Good business practice and application of a few fundamental principles tend to prevent actual waste of funds all too much needed in other parts of the school program.

Some school people refer to what follows as the scientific approach. Still others refer to it as an art. However, those of us operating in this field think of it as a common sense application of good business principles. In this connection, a set procedure is followed, calling for first things first.

Preparing Maps

Number one on the list is the preparation of maps. Base maps in black and white can usually be obtained from state public works or highway departments or from county highway departments. The maps showing the location of homes are to be preferred but are not entirely essential. Such home locations merely tend to shorten the time consumed in later location of pins on a spot map.

The second step consists in establishing the boundaries of the district, the location of schools, and possibly the limits of the service areas for the schools involved. The map is now ready for the commercial photographer with request that an 8 by 10-inch negative be prepared for scale maps two inches to the mile. This scale must be exact as route lengths, costs of operation, and time schedules will all depend on the accuracy of the scale.

Several copies of the negative in black and white should be printed for carrying on trips about the area by members of the school staff who find it desirable or necessary to visit the homes of pupils. There should also be three two-inch scale maps in black and white made from the negative. Two of these maps should be mounted on thin plywood and framed. The third such scale

map should be kept in a mailing tube when not in immediate use.

The final step in map procurement involves securing one enlargement of the map in black and white. The scale here is not important but the map should be large enough to allow the use of push-pins to indicate the home locations of all pupils to be transported. The enlargement, usually 40 to 60 inches in width, should be mounted on a $\frac{3}{8}$ -inch backing and framed. This map, mounted on a convenient wall will serve for pupil locations throughout the transportation service area.

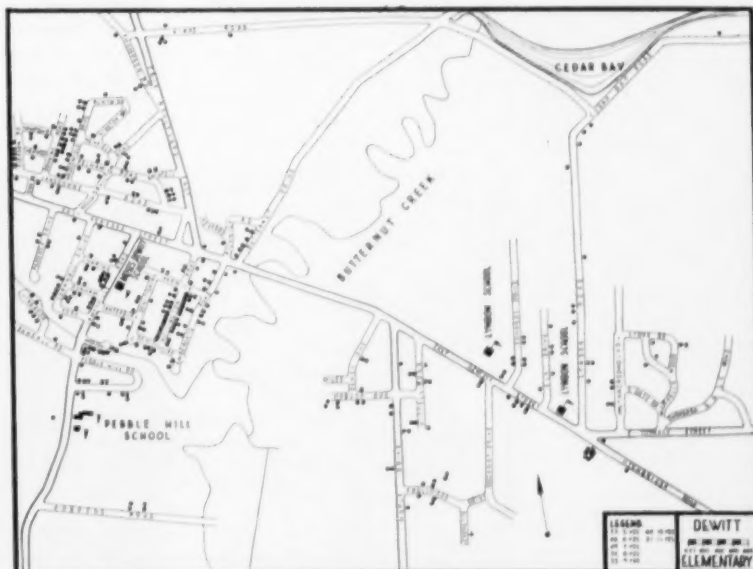
Policy Now Needed

Up to this point the school administrator or transportation supervisor was able to carry on. However, there is now need for determining transportation policy. The line between transported and nontransported pupils must be established in order to know which pupils are to be represented on the map by the use of push-pins.

The enlarged heads of the push-pins come in a variety of colors and contrasting colors should be used to indicate kindergarten, grade, and high school pupils. Contrasting colors for the same grade groups transported to different schools can be very effective in setting up bus routes. All such pins should be the $\frac{3}{8}$ -inch type so that the heads can be pushed against the map surface and avoid becoming loose and falling. The school nurse, attendance officer, and school principals can be of material assistance in placing pins on the map. Congested areas can usually be managed by using larger pins with a contrasting band across the top for groups of five within the same grade group or cross bands for groups of ten in the same grade group, grades, high school, etc.

Basic Principles

Now as to principles. The most service from the least number of buses spells the greatest economy. In general



The use of maps with school and home locations can be invaluable in the preparation of bus routes.

loop routes accommodate more pupils over less miles than do shoestring routes. As to time, open country takes twice as many minutes as miles plus a minute for each stop. Dual transportation, high school and grades separately, means that one bus does the work of two where such service is at all possible. The time schedule will determine possibilities.

As to the time factor, 30 to 45 minutes is considered as reasonable time while an hour's time should be the limit. With dual schedules, a bus on a long high school route can be assigned to make a short grade trip, or the reverse can be used. Usually grades are brought in on second trips and taken home on first trips. However, some schools, with mostly long routes, take high school trips first in the afternoon. A study of the map and the use of a map measure on the two-inch scale map will indicate whether or not the dual schedules are possible. Buses available at the time will also have some bearing on the schedules set up.

Value of a Station Wagon

With any considerable setup, there is usually place for one or two small vehicles such as a station wagon. These units can be used profitably on tail ends of long routes and on side trips where the going is somewhat tough for the larger buses. These small units are also desirable where half-day sessions of the kindergartens are in effect. Here, too, all kindergartners on certain routes should be brought in on the morning trips while others will be picked up at noon and be taken home on the regular afternoon trips.

In establishing bus and route schedules through study of the spot map and use of the map measure on the two-inch scale map, the school mechanic and one or two of the drivers longest in service will be of material assistance in arriving at the best routing and bus schedules. Once the best utilization of buses within proper time schedules has been arrived at it is well to have the drivers make a dry run observing stops and time schedules.

In the matter of time, it is possible to make some savings by expressing from starting point to the first pickup and, again, expressing from last pickup to school. The afternoon trips will observe the express runs in the reverse order, that is, express to first unloading point and from last unloading point to school.

Finally, the largest buses operating within load and time schedules are the most economical. The best schedules are those that are best supervised with drivers an all-important factor in any successful transportation venture.

The High Cost of Whistle Tooting

HARRY A. LEHMANN

State Teachers College, Bridgewater, Mass.

Do sports officials cost too much? Are the men who serve as arbiters in interscholastic athletic contests too highly paid? The fees paid to qualified officials undoubtedly seem exorbitant to many superintendents, principals, and athletic directors.

There are only 48 minutes of actual playing time in a high school football game. There are four eight-minute periods in a varsity basketball game, while many junior varsity games are limited to six-minute quarters. On the basis of actual playing time, the officials are indeed well paid.

However, actual playing time is not an accurate measuring device for estimating the worth of officials. It represents only a small percentage of the total time devoted by the official to his avocation.

He spends time en route to and from game sites. In metropolitan areas, trips may be short, but in less densely populated districts, considerable travel may be involved. In addition, officials are required to attend meetings of their associations. Each official is required to attend a specified number of meetings to maintain his status as a qualified official.

Good officials spend a great deal of time studying the rules and related materials. Each season they must review the rules and familiarize themselves with changes and changing play situations. Time is spent in perfecting themselves in the mechanics of officiating.

Officials have certain expenses directly related to their work in officiating. First, they must pay a fee in order to take qualifying examinations required of accredited officials. Thereafter, they must pay annual dues.

Second, wise officials incur the expense of insuring themselves against injury during contests, and in traveling to and from games. An official who is injured en route or during an athletic event, may suffer loss of income and considerable hardship unless he has proper insurance coverage.

The risk of injury is constantly present. Ask any man who has worked at the umpire's position, behind the defensive line,

in football. Or ask the basketball official who has worked in small gymnasiums where the feet of spectators or the walls near the court are real dangers.

Uniform of the Day

Officials must be properly dressed and equipped. A football official must wear football shoes, dark stockings, white socks, white knickers, and a striped shirt. A basketball official needs basketball shoes, white socks, navy blue or gray pants, and a black and white striped or a gray shirt with blue trim, whichever is prescribed. The equipment for a football official includes a red penalty marker, a whistle, a horn, a down indicator, a chainsnap, and a stopwatch. A conservative estimate of the amount of money a football official must spend on uniform and equipment is at least \$35; basketball officiating requires an outlay of \$20. Some of these things last indefinitely; but uniforms and shoes require frequent cleaning and repairing and periodic replacement.

Many officials drive their own automobiles to assigned games. They may or may not be paid for travel. In northern areas, basketball officials are frequently called upon to make long trips over icy roads.

It is not unusual for an official to pass up a home-cooked dinner for a hasty meal of sandwiches in order to arrive at a game site at the designated time. Other officials occasionally forfeit hourly wages at their regular jobs in order to arrive promptly for their assignments.

For the most part, school athletic officials are hard-working and conscientious. Their work is performed under the highly emotional conditions which surround interscholastic athletic contests. Men who are not sincerely interested in school sports rarely continue in the work for any length of time.

There is a constant need to secure capable replacements for those who retire from officiating. Only by paying fees which are commensurate with the time, expense, interest, and risk involved can schools assure themselves of adequately trained, competent officials.

SCHOOL LUNCH TRENDS

Three Requisites for Effective School Food Service

ROBERT DYMENT

Dunkirk, N. Y.

A laborsaving kitchen layout; sufficient, modern equipment; efficient management; these three factors have helped cafeteria personnel in the Lake Shore Central School, Angola, N. Y., speed the preparation of lunches and the flow of students through the serving lines without sacrificing quality of food and students' selection and eating time.

Patricia Ann Hoffman, manager of the Lake Shore Central Cafeteria, which was opened in 1955, is responsible for serving 370 students type A meals in two serving periods.

The cafeteria, the result of months of intensive planning, is laid out in such a manner as to assure plenty of working space, yet at the same time saves steps for employees of the kitchen. The system features a double or twin serving line, whereby students enter the area from a center door, moving to the left or right serving line. These identical lines double the number of students that can be served at the same time.

Each serving line starts with the tray rack, moving next to the steam table, cold pan, ice cream server, counter, and cashier. Display shelves are located in front of the steam table to assure a view of what is being offered. From the serving line, the children move directly to the dining area.

To the rear of the serving line, separated by a wall, is the 24 by 20-foot kitchen. The first units to be found in the kitchen, located in a row, are the sandwich preparing table and two worktables on both sides of a pass-through area leading to other units.

Behind this line are the cooks' table and two large electric ranges. Directly opposite these ranges are an electric roast and bake oven, steam kettle, and steamer. To the left of this layout will be found the large cold storage room. Behind the above-mentioned units are the mixer, preparation table, vegetable sinks, automatic potato peeler, various shelves, and the cafeteria manager's office.

Dishwashing units, all automatic, are kept to the right of the kitchen, facing the students' dining area. They are located so that they will not interfere with the

kitchen operations. To the left of the kitchen is found a private dining room for faculty members. A freight elevator, to the rear of the kitchen, leads to the basement and another storage room.

All kitchen equipment was placed so that produce can be brought up from the basement area or out of the cold storage room and gradually work its way from the

rear of the kitchen to the front and then to the serving line. This allows the cafeteria personnel to better understand what the next operation is, rather than having various items scattered in different sections of the kitchen.

This unit-by-unit layout has reduced the number of steps needed by employees,

(Concluded on page 92)

Two views of the efficient cafeteria in the Lake Shore Central School, Angola, N. Y., show the dual serving-line arrangement (right) and the oven-steam kettle-steamer section of the laborsaving kitchen.



Accent on Guidance

ELAINE EXTON

What will our American economy be like in 1965 when the children now in upper elementary and junior high school reach working age? Some thought-provoking answers are provided by a recent U. S. Department of Labor study which foretells these new dimensions in man-power resources and demands:

A national population of 193 millions, compared with around 170 million today—the equivalent of adding a city the size of Chicago to the United States about every 18 months for the next ten years.

An annual production rate of \$560 billion worth of goods and services, compared with \$391 billion in 1955.

About ten million additional jobs necessitating a total labor force of approximately 79 million persons to staff our schools, man our businesses and factories, and maintain our armed forces, compared with 67 million now.

Moreover, the worker of 1965 will need to produce some 30 per cent more goods and services than he did in 1955 in order to meet the needs of our mushrooming population, declares Secretary of Labor James P. Mitchell, emphasizing that "he will need to be more efficient, more highly skilled, and better educated than any American worker in history."

Population Factors

The fact that nearly half of the ten million increase anticipated in the labor force by 1965 will occur in the 14-24-year-old group (4½ million) whose members will be drawn from the boys and girls (5-15 years of age) presently enrolled in the elementary grades and early years of high school poses a further challenge to the nation's schools to furnish the guidance, education, and training services that will help all America's youth attain the levels of achievement of which they are capable.

Unfortunately the boom in birth rates beginning in 1948 which in the past eight years has added 6,660,000 children to the enrollment in our elementary schools and in the next decade will swell high school enrollments by 3,940,000 is creating additional needs for personnel in education, construction, school supply, and allied fields at a time when the labor pool of young people of employable age (18 to 24) is at low ebb due to the decreased birth rates in the depression years of the thirties.

Between 1945 and 1955 the number of young men and women aged 18 to 24 dropped from 16.8 million to 15.1 million. This loss will be reflected in the labor market in a decline of about a million

workers in 1955-56 in the group 25-34 years of age, generally considered to be one of the prime working ages in terms of career development and contributions to the skills of the American work force.

Occupation Trends

Not only will the number in America's labor force be continuously increasing in the foreseeable future, according to Labor Department predictions, but there will be significant changes in the relative importance of some of its major occupational groups, a circumstance which will make a high school education increasingly essential.

An increase of more than a third in professional and technical positions is foreseen by U. S. Department of Labor officials who report "new developments in the professions, and in automation, electronics, and precision machinery will accelerate the trend toward more jobs for the educated and skilled and fewer opportunities for the unskilled."

Whereas in 1900 industry needed one engineer for every 400 workers, the present ratio is one to 40. Every professionally trained engineer now used by industry, moreover, requires, on the average, a crew of five trained technicians.

There is also an ever growing requirement for technologically trained persons in the armed forces—a demand which Robert L. Clark, Executive Secretary of the President's National Committee for the Development of Scientists and Engineers, describes as "only prologue," pointing out that "basic scientific discoveries are exploding all about us, opening up vast new vistas and stirring up a whole host of unanswered questions for a new generation of scientists and mathematicians."

Highlighting the stepped-up qualitative needs of the armed services stemming from advances in military technology over the past decade, Albert Kay, Director of Manpower Supply in the Office of the Secretary of Defense, comments: "At the end of World War II about one third of all enlisted jobs were in occupations which are classified as 'technical' or 'mechanical' jobs in the civilian economy. These fields now account for approximately 45 per cent of all enlisted jobs."

Labor Department projections further show that, if present trends continue, by 1965 the number of professional personnel may almost reach the eight million mark, accounting for slightly more than one out of every ten workers.

In addition to personnel required for

replacements, Government officials estimate that 905,000 more young people will need to be trained for these five professions alone:

- 45,000 more doctors
- 75,000 more college trained nurses
- 605,000 more teachers (120,000 more college; 485,000 more elementary and secondary)
- 80,000 more natural scientists
- 100,000 more engineers

The number of industrial workers at the craftsmen (skilled) and operative (semi-skilled) levels is expected to rise by about one quarter with increases particularly anticipated among the building trades, metal trades and skilled mechanics, repairmen, and technicians. Currently some 250,000 workers must be trained as craftsmen and operatives in the skilled trades each year just to maintain our present levels of skill in the work force, without allowing for expansion.

Department of Labor statisticians calculate that by 1965 the following occupational groupings will also have experienced increases: proprietors and managers will have expanded more than one fifth, clerical and sales personnel by more than one quarter, while service workers (including barbers, beauty-shop operators, hotel employees, policemen, and firemen) will be 10 to 15 per cent more numerous.

The less skilled workers, however, are declining in importance in the nation's total work force. In 1940, 31 per cent of the American labor force was classified as farm workers, laborers, and household workers. In 1956, only 17 per cent were in these occupations—a percentage it is anticipated will be reduced still further by 1965.

Impact on Schools

Our present undersupply of personnel and what lies ahead in terms of man-power resources and demand in the United States in the next decades brings forcibly to the fore the need for adequate school guidance services.

One of the ways that schools can score in helping alleviate man-power problems is by reducing the rate of school dropouts. A substantial number of young people—about 40 per cent the country over—leave before high school graduation. Many of them drop out at the end of the eighth and ninth grades and so do not attend school long enough to be adequately prepared in the vocations needed by our society. Part of our source of supply for professional training is lost due to the fact that a considerable portion of the top one fifth of American high school graduating classes fail to go on to college.

Another vital school responsibility in furthering effective man-power utilization concerns students who, though finishing high school, are not sufficiently aware of the occupational opportunities available to them or are not sufficiently motivated during their school days to enter those consistent with their potentialities and education.

An important avenue through which the secondary schools can aid in remedying such situations is by developing curriculums which are satisfactory to students

and lead into further educational and occupational activities. Another approach is through providing the guidance necessary for students to make wise choices of curricula and occupations.

This may be accomplished, as Frank L. Sievers, Chief of the U. S. Office of Education's Guidance and Student Personnel Section, suggests, by increasing the efficiency of guidance procedures, especially through these two methods — on the one hand apprising young people of the world of education and of work and motivating them in learning and thinking about their future, which may be done through adequate counseling service, social studies classes, group guidance work, the use of interest inventories to stimulate their thinking, and so forth, and on the other hand improving the diagnosis of the level and aptitudes of students so that the school, through the counselors and others involved, know the directions in which students should be trained.

How the school systems in three American cities — Chicago, Cincinnati, and Detroit — are helping their pupils to a better knowledge of their own capabilities and preparing them for suitable jobs was interestingly brought out in a symposium participated in by three superintendents from these cities at a recent Youth Training-Incentives Conference in Washington.

While some of the ideas they expressed are doubtless already in use in many schools, a few of the practices they presented are cited here in the belief they afford practical suggestions which can be adapted to fit a variety of local situations and school systems.

Motivation the Key

Motivation was considered basic by all three educators. Describing "this business of taking youngsters where they are and raising their sights, their horizons, and helping them to see the reasons for long and arduous work and preparation" as the central part of any effective guidance program, Dr. Kenneth Lund, Assistant Superintendent of the Chicago Public Schools, offered these six attributes which characterize a highly motivated person as goals to strive for:

First, the highly motivated person has a goal or an objective. This goal seems to point to the direction and lend purpose and meaning to what he is doing. In essence the challenge here is to provide through all of the adult forces of communication the kind of guidance that will be meaningful and significant for these young people.

Second, a highly motivated person feels he is making progress. "Nothing succeeds like success," and no person can long sustain a course that is beyond his basic abilities, outside the pale of his interests and aspirations.

Third, he participates with others whom he appreciates and who appreciate him.

Fourth, the highly motivated person has an important assignment, personally and individually, and it is viewed as important by his peers. Here, of course, is that essential element of status and all of the forces of the community communicate to him his worthwhileness as a person and as an individual.

Fifth, he has confidence in his leaders and is secure in his relationship with them. Perhaps here the school teacher most of all helps him with the formation of his basic attitude

patterns toward adults. Here some of that basic feeling of appreciation and worthwhileness is found, and to a large extent much of what he later reflects in his relationship with his leaders in business and industry will depend upon the adequacy of his early training in the school setting.

Sixth, the well adjusted person is free to express himself, and others share with him their thoughts, plans, problems, and aspirations.

Guidance Increasing at Elementary Level

Emphasizing that current information indicates career choices are being made earlier and earlier by youth, Dr. Lund stated that Chicago public schools have found it necessary to provide educational guidance as a basic part of the program of the elementary grade level.

"Through mass media of communication, and lessons in which the central purpose is the relationship to others, we are finding that youngsters begin to form attitudes and habits which influence their subsequent choices," he reported, noting that "engineering, for example, as a career choice is not commonly selected in the upper years of high school, but is basically accepted a point of view in the youngster's early experiences, even at the middle grade level in his work with mathematics and science."

Dr. S. M. Brownell, Superintendent of the Detroit Public Schools, supported this view, commenting: "It is the aim of the Detroit Public Schools to provide an opportunity to every student who will enter an occupation upon leaving the Detroit schools to learn the skills that are required by business and industry. *This starts with the kindergarten* and it continues throughout the school life of the child.

"I think that sometimes we forget that vocational education and education for an occupation are not something that begin in the high school or in the college, but actually start when children enter kindergarten and begin to learn how to get along with each other. . . . One of the common complaints of those who employ youth is that they don't get along together — it is in the matter of their personal relationships and their work habits and attitudes."

While we recognize the motivating force of early job decisions, he continued, "it is also important always to make it possible and desirable for individuals to change their job decision as they raise their sights and come to know better their own capabilities and the possible job opportunities.

"So, the plans and objectives are reviewed twice a year as the student chooses his courses for the following semester and again during his senior year and through co-operation with business and industry and such things as the Annual Careers Unlimited (Exhibition where displays manned by representatives from business, industry, and the professional world illustrate a number of the careers open to the city's youth), and in other ways, the attempt is made to give pupils and counselors opportunities to understand better the occupations that are available in Detroit as regular parts of the program."

Reducing Dropouts

On the "dropout" front Superintendent Brownell related that a special program

has been set up in six of Detroit's high schools where "it is possible for youths who have learned through personal experiences what unemployment means to use the schools to become employable." This program which is known as job upgrading is entirely voluntary.

It emphasizes, Superintendent Brownell explained, "training for employability as soon as possible for a group not interested in a complete high school education. Over a period of seven years since its inception, it has demonstrated that even what may have been considered less than promising human resources may be made productive. Of course, among school dropouts, there are some who want to finish high school and who actually return to school for that purpose, including a few of the job upgraders, either in regular high schools or in the evening schools, and we believe that much more needs to be done and can be done to make it desirable and possible for youth of ability who drop out of school to complete a high school program at a later date."

In the Cincinnati Public School System plans have been set in motion to bring about a better utilization of the manpower potential now in the schools by materially reducing the rate of dropouts.

As described by School Superintendent Claude V. Courter this attack embraces four lines of endeavor — the improvement of motivation, parent education, solicitation of help from leaders of business, industrial, and professional groups in Cincinnati, and obtaining full utilization of the training facilities that are available in the school system and in the community.

Fruitful activities now underway range from using "success stories" to illustrate the employment opportunities available to young people in Cincinnati who are willing and able to take the necessary training to excursions in which junior high school pupils visit the new vocational high school and see its equipment in operation. The program embraces courses in job relations for young people who live in underprivileged neighborhoods which emphasize the importance of good work habits and the development of constructive attitudes toward work and toward supervision; extensive use of motion pictures and educational television to encourage youths to remain in school and to work hard toward becoming ready for the career opportunities ahead of them; and, since teachers can have a profound influence on the ambitions and goals of youth, an extensive program of in-service training of principals and teachers.

Preparing the Teachers

Expressing a belief that it is increasingly important to provide for classroom teachers, and for all who talk with children, a continuing flow of occupational information and to make them increasingly aware of the opportunities available in the community, Assistant Superintendent Lund revealed that in Chicago in the past year "through our Teachers College we have conducted a program of in-service training where some 500 teachers have heard industrial leaders describe the economic, business, and industrial strength of Chicago and its implications for all citizens."

THE AMERICAN School Board Journal

An Independent Periodical of School Administration

William C. Bruce, Editor

SCHOOL BOARD RESPONSIBILITIES

Following a study of school board organization and relationships, the Milwaukee Board of School Directors has adopted a five-point statement outlining its general responsibilities under five main heads. The board says:

"1. The school board has the *legal* responsibility for the conduct of the public schools, and is the only official agency in the community that has such.

"2. The school board has a *civic* responsibility as the controlling body of a basic service essential to the life of the community.

"3. The school board has a *social* responsibility toward all the people who look to the school as the center of growth and development for young and old alike.

"4. The school board has an *economic* responsibility since there is a direct relationship between good schools and the standard of living.

"5. The school board has a *moral* and *ethical* responsibility to discharge its functions completely and impartially in the interests of the greatest good to the greatest number at all times."

AGING TEACHERS

A STUDY of aging teachers in school systems reveals useful facts for school administrators and school boards. The findings reported by Dr. Norma R. Law, of the New York State Department, shows that the personal and professional status, problems, and failures of teachers above 50 years of age are those of most aging groups of professional men and semi-professional employees and represent not only the shortcomings in initial education and professional training, but also the shortcomings of the in-service training programs, of the supervision, the promotional plans, and the salary schedules in force especially during the late twenties, during the depression thirties, and even the early war forties.

There is one happy aspect of the problem of supervising aging teachers and that is the fact that these men and women who have remained in the schools for periods ranging from 20 to 40 years, are most frequently persons who are dedicated teachers and who have a strong love for their work. A very few individuals have remained in the profession because they could not readily fit into industrial or commercial occupations. The vast majority are natural teachers who not only are able to bring to the pupils the subject matter which they teach, but also who love children and who are deeply concerned to develop them into sound personalities, good men, and good citizens.

In every community and in many schools there are aging teachers who are the backbone of the staffs of their respective schools and who are giving far more of themselves than they receive in the way of salaries. Where such men and women are in reasonably vigorous health and are doing competent teaching jobs, they should be encouraged in

every way to stay on, even though they may have reached the legal age of retirement. Their continued presence should be encouraged by the board and by the administrative staff. There is a great need in the United States for making the best possible use of all teaching resources which we have.

HOW SOON?

In a case concerning racial integration, Justice E. Harris Drew, of the Florida Supreme Court, wrote in a dissenting opinion: "It is a fundamental truth that justice delayed is justice denied. This case has now reached the point where further delay will be tantamount to a denial of a constitutional right. . . ."

Boards of education have a serious responsibility of determining how soon they will give effect to the repeated rulings of the courts. Racial integration in schools is no longer a legal problem; it is a social problem which school boards should help to solve with reasonable promptness.

BILINGUAL CHILDREN

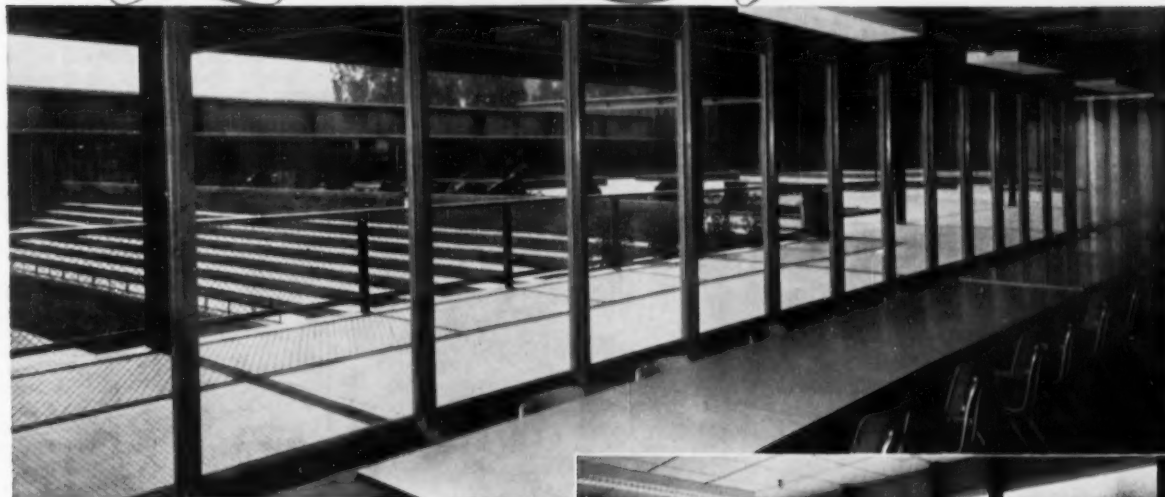
THE problem of providing adequate school services for immigrant children and in general for children who are living in bilingual families is again coming into the foreground. Except for small areas of the country, this problem was practically nonexistent during the decades following World War I. The resumption of immigration and the admittance to Continental United States of large numbers of Puerto Rican Americans has again made this problem a serious one in numerous cities. School boards may well consider in this connection a statement by Newton Nelson, in *High Points*, the official organ of the New York City high schools.

Among the advantages claimed by investigators for bilingualism are that it sharpens the mind, extends the mental horizon, contributes to tolerance, world-mindedness, and appreciation of other cultures. Whether the advantages claimed have merit or not, it would appear that the advantages depend entirely upon the degree and extent of bilingualism, to say nothing of the environment in which it is exercised. Certainly the benefits of bilingualism are more likely to accrue to a person completely fluent in a second language than to one having but a limited acquaintance.

Concerning the disadvantages of bilingualism, it is claimed that it retards mental development, hampers progress in school, impedes the flow of thought and speech, and leads to feelings of inadequacy, insecurity, and inferiority. There is certainly sufficient data to support these claims, and as has been indicated, the multitude of other factors involved would tend to cast doubt on such conclusions.

While the findings of investigators are inconclusive at the present stage of research, we may note that the monolingual person is distinctly handicapped in his efforts to understand cultures other than his own. Of this there would appear to be little doubt. The bilingual child, on the other hand, who is growing up in a world both strange and new, faces two ways through his double means of communication and understanding. We cannot think of this, as some investigators have, as a "handicap." On the contrary, we believe that the bilingual child, by reason of the fact that two cultures are available to him for comparison, is especially well equipped to understand the interrelation of these cultures. This would be particularly true of the bilingual child who comes from a minority group. Teaching the bilingual child, then, should not be an attempt to eradicate his second language in favor of English. Indeed it should be kept in mind that his "second" language is frequently his mother's tongue, and therefore he will be most reluctant to give it up for a stranger's tongue. By guiding him from one culture to another, by building upon his cultural background, and by instilling in him both confidence and pride in his earlier language and culture, the sympathetic teacher can get the bilingual child to accept English and to grant it coexistence with his own language.

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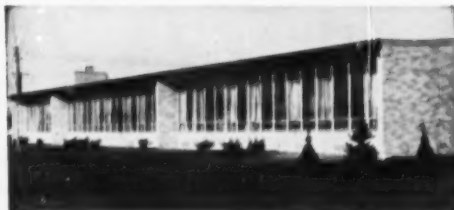


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THE SCHOOL SCENE

(Concluded from page 9)

directly benefit the local schools. Only those schools in Minnesota whose needs must be financed from state taxes will benefit.

The committee feels that federal aid will result in federal control, unless the program of federal support is based on a purely pupil-population basis. Because local control of schools is important, the control and expenditure of federal funds should be determined by the local school district.

SCHOOL BOARD MEETINGS

During the school year 1957, the school board of Dist. No. 120, Libertyville, Ill., is engaged in a new policy for upgrading news coverage of school board meetings. The new policy embraces three important aspects:

1. Reporters will receive copies of meeting agenda well in advance.

2. A member of the administrative staff who attends the board meeting is given the responsibility of visiting the newspaper office which did not cover the previous night's meeting. He discusses with reporters or editors the action of the board, and the reporters write the story.

3. An administrative staff member who has the responsibility of reporting school news prepares a release for the news staff.

The policy has developed better press relation as well as increased faculty-board understanding.

INTEGRATION

In a 5-2 decision, the Florida Supreme Court, on March 8, refused to carry out an order of the U. S. Supreme Court to direct the admission of Virgil D. Hawkins, a Negro, to the University of Florida Law School. The Florida court ruled that it had control of its own "discretionary process" in issuing orders to carry out the higher court decrees, and held that violence would result from ordering admission at this time.

RIGHT AUTHOR, WRONG TITLE

An error on page 34 of the March, 1957, JOURNAL lists Richard O. Carlson, assistant in educational administration at the University of California, Berkeley, as an assistant professor of educational administration.

SCHOOL-COMMUNITY CONFERENCE

Teachers College, Columbia University, in New York City will be the location for a conference on school-community relations, April 2 to 5, at which more than 300 school leaders and key citizens will participate.

The purpose of the conference is to help the participating communities to plan strategies and techniques for more successful school-community co-operation.

The conference is being sponsored by the Cooperative Center for Educational Administration, an affiliate of Teachers College, of which Prof. Norton L. Beach and Dr. Vivienne N. Anderson are cochairmen.

COMING CONVENTIONS

May 12-15, New York State Association of School Business Officials, Syracuse, N. Y., Hotel Syracuse. Secretary: Philip J. Moore, P.O. Box 7303, Capitol Station, Albany, N. Y. Attendance: 400. Exhibits: yes.

May 30-31, June 1, Massachusetts Association of School Committees, Inc., Lenox, Mass., Curtis Hotel. Secretary: James Whitehead, New Bedford, Mass., Box 372. Attendance: 400. Exhibits: yes.

June 30-July 6, National Education Association, Philadelphia, Pa., Benjamin Franklin Hotel. Secretary: William Carr, 1201—16th St., N.W., Washington, D. C.

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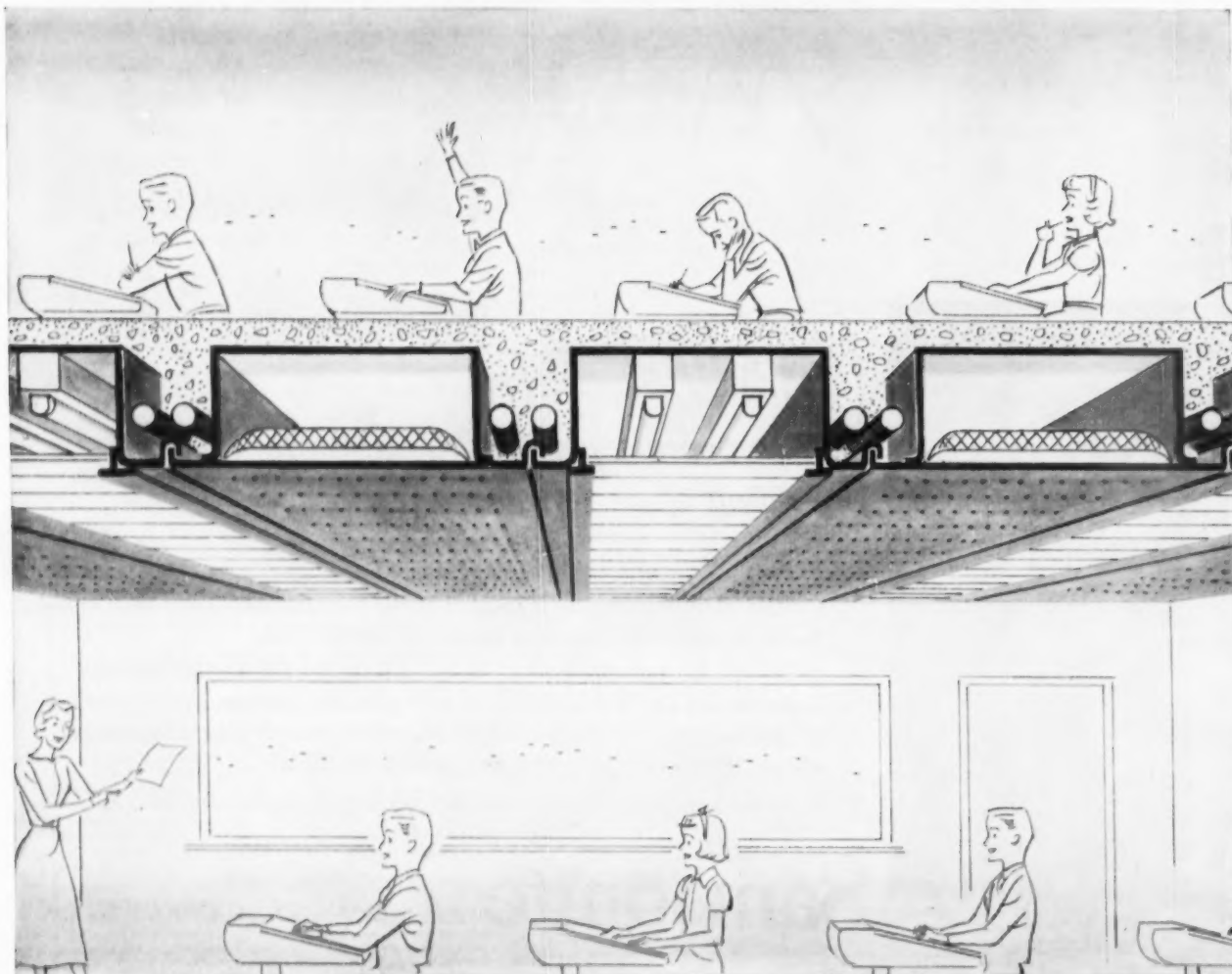
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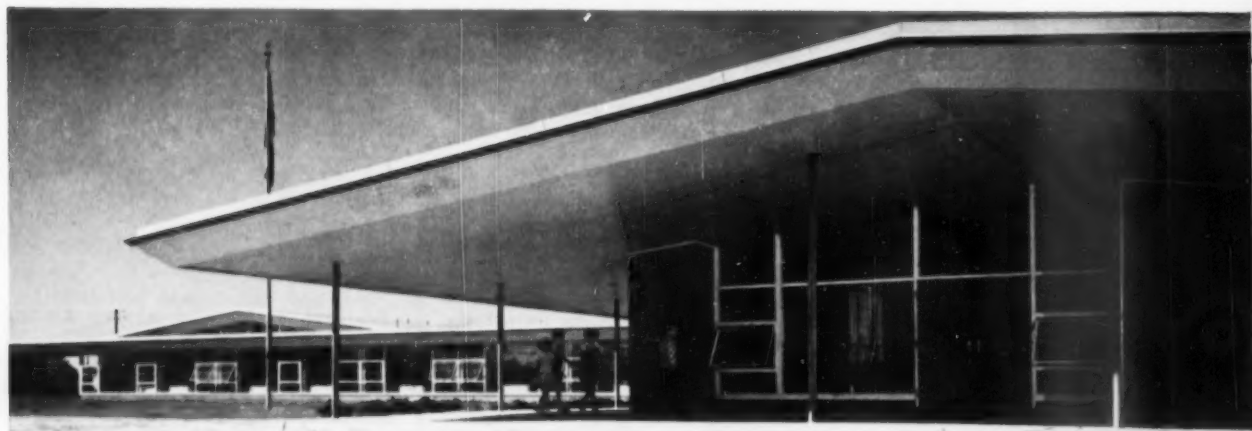
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STATE RESPONSIBILITY

(Concluded from page 32)

Another problem to be considered is the effort which a district has made in the past. If a district has a heavy bonded indebtedness for buildings already constructed, that fact of course should be taken into consideration. Provision should be made for including the effort required to retire existing indebtedness as well as the effort needed to provide additional buildings. In other words the required effort for the entire program including debt service should be uniform in terms of the ability of the various districts.

4. What can be done in areas where districts have not been properly organized? This presents one of the very difficult problems for a number of the states as pointed out earlier. The problem in a state with many small districts is much more complicated than in a state where all or practically all of the districts are reasonably well organized. The proposal made by the Missouri Citizens Committee a few years ago for dealing with such situations seems to be reasonably satisfactory. According to this proposal funds would be made available for all districts in terms of the number of units and the ability of the district but would not actually be released to improperly organized districts until they have reorganized or until studies show that there are urgent needs which must be met at some recognized permanent center for one or more of the districts.

5. What state controls are needed and should be established? For a number of years we have been greatly concerned about state controls which may be established in connection with the program for financing the current operation of the schools. The danger of undesirable state controls is just as serious in the capital outlay field as for current expense. There is considerable evidence that some states have established so many detailed controls that many districts are being greatly handicapped. When the state is in the position of telling a district in detail what it can or cannot do, there is great danger that desirable local initiative may be discouraged and wholesome local adjustments may be denied. The general principle that the state should establish only the minimum necessary requirements to safeguard the interests of all is as sound in the capital outlay field as it is in the current expense field. Any control or requirement that violates this principle or goes beyond the minimum necessary should be seriously questioned.

Ideas for Continuing Long-Range Programs

The bulletin *State Provisions for Financing Public School Capital Outlay Programs* presents a number of criteria for guidance in developing state programs. Those criteria seem to have stood the test of experience reasonably well and may be considered applicable at the present time. Since they are available in the bulletin there is no need to repeat them here. Instead some proposals based on those criteria are submitted below in terms of practical applications required for developing a sound program.

1. Provision should be made for continuing minimum uniform local effort supplemented by necessary apportionments by the state to assure that a reasonable amount will be available for capital outlay each year in each properly organized district. To illustrate: If, in a given state, the cost of constructing and equipping each classroom including the necessary related service areas is \$30,000 and if it is assumed that such space should serve for 50 years without major alteration or reconstruction, the amount provided each year should be \$600 per adjusted classroom unit. Thus a district having 100 classroom units would have available annually at least \$60,000 for school plant construction. A cost-of-construction index should provide that the \$600 would have available annually at least \$60,000 the cost of construction increases or decreases. The \$60,000 available to each district would be comprised of local funds provided by the local uniform effort (based on a valid measure of ability) supplemented by the necessary amount of state funds to make up the total. This \$600 multiplied by the number of classroom units in the district should be available for the district to use during the year or to accumulate over a period of two or more years to use for construction.

If the district is small and improperly organized (for example, a district with only 5 units) the funds should probably be held in the state treasury to the credit of the district. When the district reorganizes by joining other small districts or a larger district, the accumulated funds should be released for use by the properly organized district. Incidentally such funds held in the state treasury could be used to supplement other funds for loans to districts which need to borrow in order to meet current building needs. Districts should not be required to issue bonds to participate in this current continuing program but should only be required to make the necessary local effort and to observe reasonable provisions for using the funds established by the state. The people of any district should, of course, be authorized to provide local funds for capital outlay in addition to those provided by the minimum required effort.

2. To make this program adequate, provision will also have to be made by the state for loans to districts. State bonds should be issued in the amount found necessary to meet the needs for loans. The borrowing capacity of a district should no longer be restricted to a percentage of assessed valuation—a procedure which handicaps or even makes it impossible for impoverished districts to meet their needs. Instead, the borrowing capacity of a district should be represented by a substantial percentage of the current capital outlay funds multiplied by the number of years for which the loan is sought. Thus a district with 100 classroom units (at \$600 per unit) might be thought of as having a borrowing capacity of 75 per cent of \$60,000 or \$45,000 per year times 25 years or \$1,125,000. If its borrowing capacity were limited by a percentage of assessed valuation, a poor district might be able to issue bonds only for five or six hundred thousand dollars.

Thus a district with urgent building needs could obtain funds from the state to meet those needs and could pay back the loan

over a period of 25 years or so. It could use the current state and local capital outlay allotment for retiring the loan or could levy extra local taxes either for that purpose or for other building needs. The state loans could thus be repaid over a period of years and both the state and many local school systems could begin to operate more and more on a current basis instead of being constantly heavily in debt.

3. The state requirements to be established should be very carefully considered to assure that they meet the basic principle stated above. Among the state requirements for using such capital outlay funds which are usually considered desirable are the following:

a) A survey should be made in the district, or in the case of small districts, in an area comprising the entire county, to determine the location of permanent elementary and secondary school centers. Where junior colleges are included in the program, the location of permanent junior college centers should also be considered.

b) The local board should adopt a long-range program providing for construction at recognized permanent centers and set forth the priority plans for construction.

c) The district should be permitted to use accumulated funds or to negotiate loans to obtain funds for construction at recognized permanent centers. Preference should probably be given to construction involving classrooms and essential related service areas until all such needs have been met.

d) Plans for proposed construction should be submitted to the state for approval to assure that minimum safety and other essential requirements established by the state are observed.

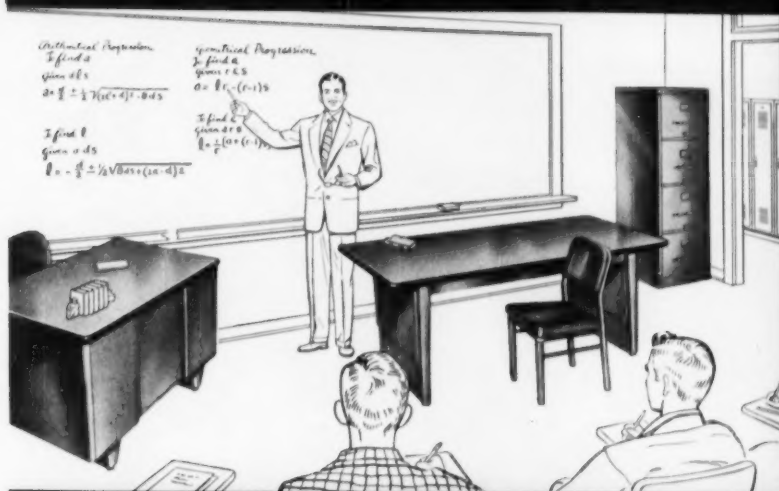
It is believed that these are about the only requirements which will need to be established for participation in and use of the funds. Any steps beyond these minimum essentials should be most carefully considered. The objective should be to encourage local initiative and responsibility and at the same time to assure reasonably sound program planning and economy.

The characteristics of a desirable program briefly described above are generally observed in programs already in operation in a few states. The present Florida plan probably comes nearer to meeting these criteria than that of any other state except in one respect. The value of the classroom unit for capital outlay in Florida was established in 1947 at \$400 and has not been changed since that time.

The Kentucky program seems to be reasonably good as far as the current continuing part of the plan is concerned but the unit amount is probably too low and no adequate provision has been made for loans or for the application of a cost-of-construction index. Several other states, including Georgia, New York, and South Carolina, have moved in this same general direction and have programs that in some respects are approaching adequacy.

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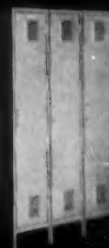


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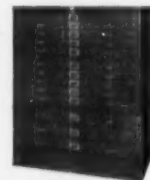


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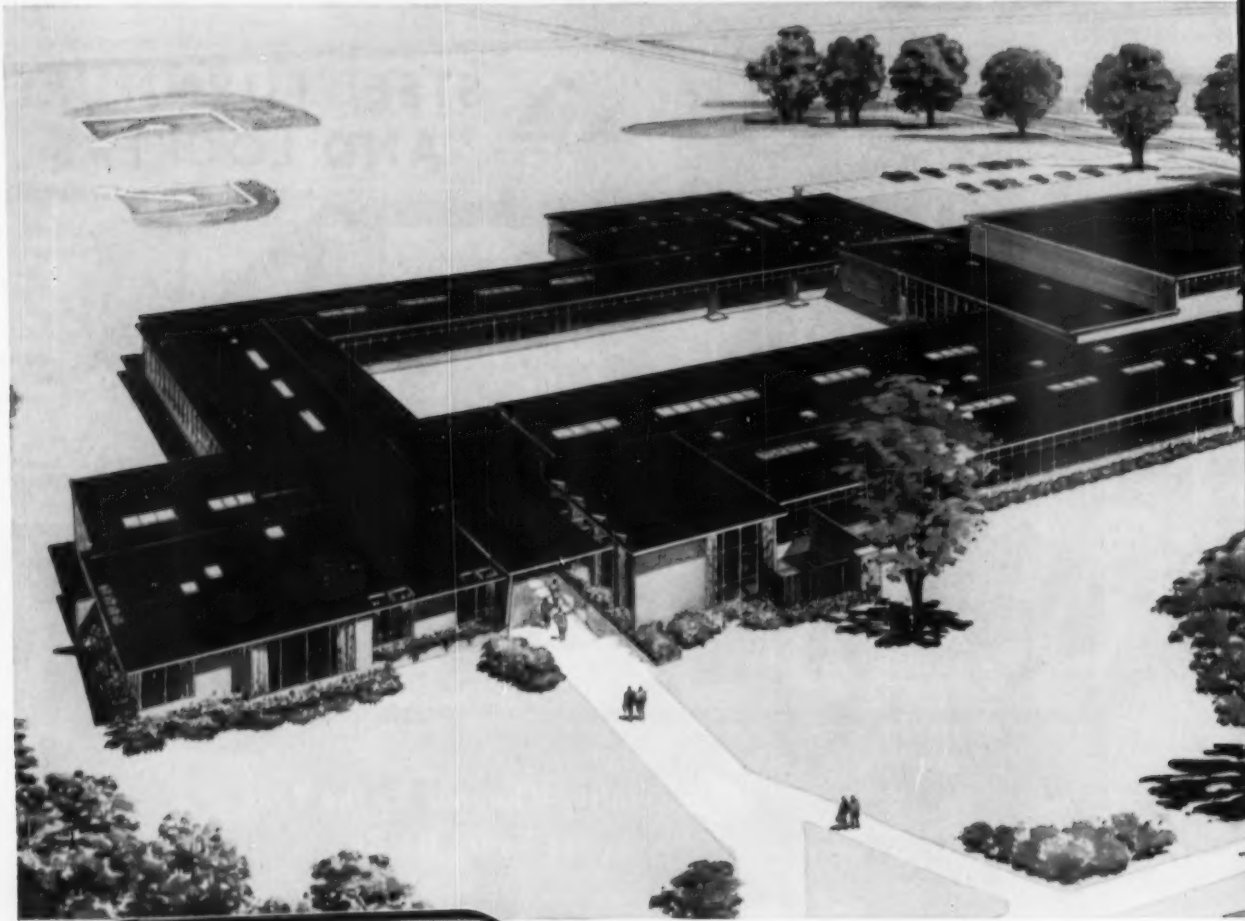
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The special after-hours comfort requirements of the gymnasium are easily handled by the Johnson Control System. With Johnson Dual Thermostats, the gymnasium can be economically heated and ventilated independently of other sections of the building to save fuel.



In science rooms the study pattern may include use of heat developing equipment which could create discomfort. Here, again, the thermostat on the wall automatically adjusts heat output and insures proper ventilation for maximum comfort.



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SCHOOL ADMINISTRATION IN ACTION

SCIENCE EDUCATION

The board of school commissioners, Indianapolis, Ind., has recently adopted a proposal requiring two years of science education for graduation from the city high schools, effective in June, 1961. In the course, one year will be devoted to physical science, and the other to biological science. The change is a step forward in an effort to relieve the current shortage in scientists.

In the spring of 1956, the public schools joined forces with business and industry to formulate a long-range program in the hope of offering the best science education program available for city and county youth at all grade levels.

A committee was formed from education, business, and industry which made several recommendations. As a result, a number of recommendations were carried.

1. The school board increased the appropriation for junior science equipment by \$56,000, bringing the total to \$60,000.

2. A total of 73 portable science laboratories were built and equipped, at a cost of \$100 each, a 60 per cent saving over commercial models.

3. A number of teachers were trained in in-service meetings to use the portable laboratories.

4. Pilot tours of industrial plants were undertaken to give the pupils intimate contact with mathematicians, engineers, chemists, and others who can explain their work.

5. Special tours for teachers were set up which expanded the usual public relations specials. The teachers were assigned to plants in their teaching area.

6. The local Chamber of Commerce set up a voluntary private fund to finance high school teachers' trips to regional and national science meetings.

7. A series of seminars for junior and senior high school science teachers were set up in co-operation with Purdue University. The seminars attracted outstanding authorities who spoke on chemistry of color, production of radioisotopes, electronics, and endocrinology.

8. Financial support from the committee helps local science fairs with special emphasis on the stimulation of interest in science projects at the junior high level.

9. Local industries offered summer employment to science and mathematics teachers.

The project has attracted considerable interest from manufacturers who see in the work an answer to the present shortage of scientists.

TEACHING ENGLISH

Supt. Clyde C. Corn, of the Roanoke-Benson Unit School Dist. No. 60, Roanoke, Ill., has directed that all teachers of all subjects participate in the school's program of teaching English. The teaching of English, Mr. Corn insists, differs from other school courses in that English is taught not only directly but also indirectly in all schoolwork. The mathematics teacher, the history teacher—all teachers in fact—use the fundamentals of English in their classroom teaching. They must insist, says Mr. Corn, that pupils answer questions, give oral reports, and write examinations in good English. Children must be required to spell correctly, to punctuate and capitalize correctly, and to use correct sentence structure.

Since September, 1956, when the plan was inaugurated, teachers have expressed complete satisfaction with the new insistence on good English and there has been an appreciable improvement in all work.

STUDY SUBJECT AREAS

In School Dist. 229, Kewanee, Ill., several curriculum committees for the past two years have been at work studying the various subject areas, particularly the elementary level. One committee on science will present a new elementary science program to place additional emphasis on instruction.

In addition to all-faculty meetings held previous to the start of the school year, the board designated two or three afternoons for in-service training conferences. One was held and another assigned for April. At these meetings, the first hour is devoted to meetings of teachers in grade groups. The superintendent follows these with visits to each building and a three-quarter conference with the faculty at the close of a school day. All such visits are informal and are scheduled well in advance. Supt. K. B. Beasley is in direct charge of these faculty meetings.

NOON HOUR POLICIES

The administrative department of the public

schools of Kalamazoo, Mich., has adopted new noon hour rules for the elementary schools.

1. The board will appropriate funds for at least one paid noon hour supervisor for each elementary school, based on a maximum ratio of 35 participating children to one supervisor.

2. Children living less than three fourths of a mile from school are expected to take their noon meal at home, except in special cases.

3. Children living at a greater distance than three fourths of a mile, and others, are permitted to carry their meals to school and be given supervision during the noon hour.

4. Reasons other than distance are illness of parent, only one parent in the home and working, and physical condition of the child.

5. Taking the noon meal at school is permitted only to children who remain on the school grounds and abide by other reasonable regulations.

TEACHER-EVALUATION PROGRAM

The administrative department of the Homewood, Ill., public schools is engaged this year in plans for a teacher-evaluation program and rating system. Merit increments are to be superimposed on the salary schedule, which provides for experience and professional training above the bachelor-degree level. During the current year salaries range from \$4,000 to \$5,940. Future revisions of the salary program are expected to increase the differential for merit. In 1957-58 the base salary for beginning teachers will be increased to \$4,200, and amounts available on the bases of performance will range up to \$600, which will increase the maximum to \$6,340.

STAFF RELATIONS PLAN

The controversial Staff Relations Plan, developed more than five years ago under the direction of James Marshall, then a member of the board of education, has been finally accepted by the New York City board of education and the teaching staff. The final vote of the teachers during the month of March, 1957, resulted in a heavy vote in favor of the grievance procedure set up by the plan, and the policy consultation devices written into the plan. The policy of city-wide consultant procedures, objected to by some of the teachers' organizations, won by a narrow margin.



RIVER FOREST, ILL., BOARD OF EDUCATION

Working closely for the past year with a committee of parents to determine the school plant needs of the district and to lay a basis for a future referendum for plant modernization, the members of the River Forest, Ill., board of education includes, from left to right: Mark Collor, John Warfield, Jr., Mrs. Betty Pickett, Martin, Frederic Slaughter, Clair Strain, Mrs. Louise Toren McCall, and Joseph Ames.



Hoover School in Neenah, Wisconsin, has many applications of L.O.F. Glass.
Designed by Perkins & Will, Chicago, Ill., and White Plains, N. Y.

An L.O.F. interview

with one of America's leading school architects (name on request)

Subject: Schools

Question: What do you consider the most important contribution of glass, properly used, in school design?

Answer: The primary function of glass in school design is to overcome limitations of space imposed, understandably, by the money budget and physical structure. The concept of space is divisible . . . space measured in square feet and, more importantly, space perceived.

The *illusion* of space is a major tool of the architectural profession . . . it conveys a consciousness of space beyond physical barriers. And to create it the architect employs glass.

Light and vision, comfort and safety, and beauty . . . these immediate benefits must be marshaled to contribute to educational environment. They help to create an atmosphere conducive to the full mental, physical and spiritual development of each child.



The environmental influence of a school building blends into the entire landscape. As a child approaches, he feels a kind of structural welcome. The transparent features of the entrance and rooms seem to beckon. He sees what and who are within, a perception that becomes ever more interesting with each step.

There is an unconscious transition as the child's personality merges psychologically with the school and its visible activities. He suddenly is within, yet he has no recollection of a physical threshold.

This imperceptible "oneness" between child and school environment should also prevail within the classroom. Expanses of glass provide intriguing "space perceived". Thus nature's out-of-doors world is integrated with the schoolroom and the bustling goings on that are inseparable from learning.

Youngsters who can look out and see a cloud-flecked sky, the beauty of trees, or perhaps a squirrel at play, will work even more diligently than if they were in restrictive, austere surroundings—and they will gain immensely broader experience in the ingredients of education. A high window sill is a deceptive barrier. If children cannot look out, they will dream their way over the sill, however forbidding its distance from the floor.

Similarly, glass space dividers between study areas and corridors tend to identify the child with the environment we call the school. Also consider the corridor a functional school thoroughfare, instead of a gloomy and sometimes hazardous tunnel. Open it visually to the world outside with walls of glass. Make it a safe and happy boulevard, adding to the educational tone of the school building.



Emory School in Palm City, Calif., uses sliding doors as part of daylight wall. Architects: Paderewski, Mitchell & Dean, San Diego, California.

Q. What are your views on the use of insulating glass, such as *Thermopane*?

A. When climatic conditions indicate it, and budgetary factors permit it, I would include insulating glass in school design. My answer must be qualified by facts-of-life considerations. In terms of healthful comfort, the value of insulating glass is great . . . also, it reduces heat loss in winter and keeps the interior cooler in summer. And aesthetically, it offers the architect greater potential in physical design. He can use larger areas of glass without worrying about excessive heat loss.





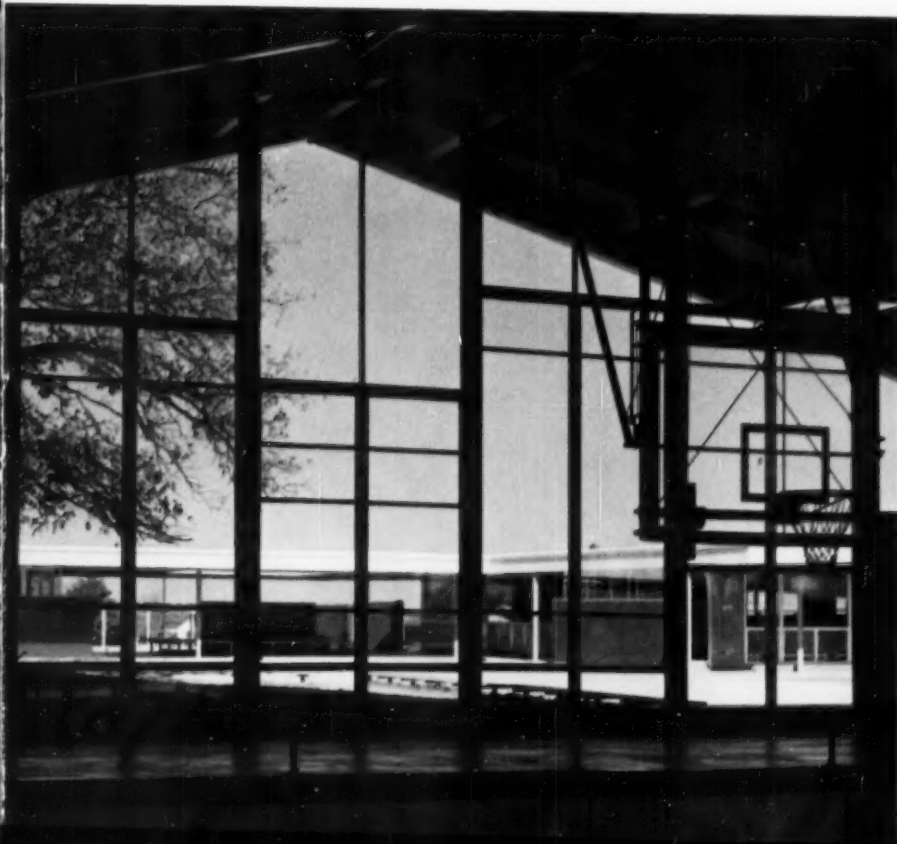
Corridor of Norman (Okla.) High School glazed with L-O-F glass. Associated Architects: Caudill, Rowlett, Scott and Associates — Perkins & Will.

Q. Where would you recommend the use of tempered glass, such as *Tuf-flex*?

A. I recommend tempered glass for any area where youngsters and missiles, of whatever description, are in motion—whether within or near the school building. And the more violent the motion, the more important tempered glass becomes.

Obviously, a gymnasium such as you see illustrated here, requires tempered glass. Kindergarten areas also are candidates for the use of tempered glass . . . for safety's sake.

And sometimes, unavoidably, a playground area is adjacent to—and virtually on a level with—a classroom section of the school. In such cases, tempered glass is to be recommended.



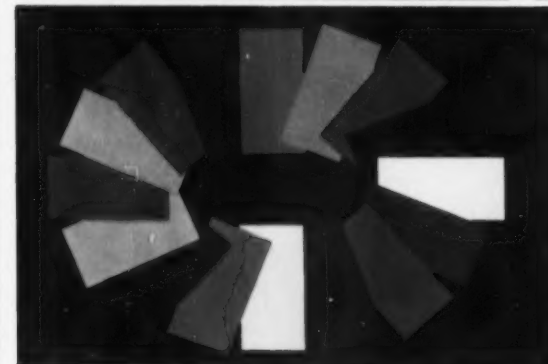
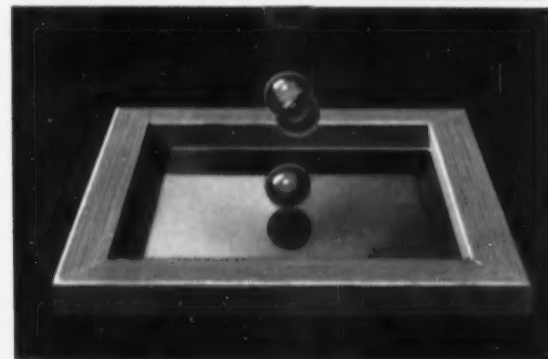
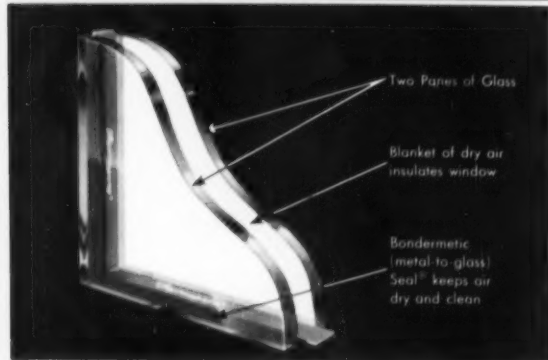
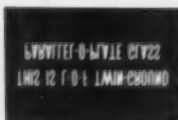
Q. Do you feel that opaque colored glass, such as *Vitrolux*, has a functional and/or decorative place in school design?

A. This type of glass, with its color and reflectivity, is also appropriate to school design—particularly as a facing material.

To achieve contrast, an architect may wish to employ color. Or the reflective sheen of glass may be preferred for an architectural effect.

Because it is maintenance-free, glass with color has a distinct advantage as a structural material.

Gymnasium in J. R. Moore Junior High School in Tyler, Texas, has L-O-F *Tuf-flex* glass from top to bottom. Architects: Brace and Russell, Tyler and Bryan, Texas. Associate Architects: Caudill, Rowlett, Scott and Associates of Oklahoma City, Oklahoma, and Bryan, Texas.



PARALLEL-O-PLATE®

Cast a critical eye on the reflections of the upside-down signs in the mirror of conventional plate glass: (left) and the mirror of *Parallel-O-Plate Glass* (right).

Parallel-O-Plate Glass is so much more distortion-free than ordinary plate glass because its surfaces are so much more parallel. And that's because of L-O-F's twin-grinding process, where the glass is ground simultaneously, top and bottom, by a huge and highly accurate machine. Freedom from distortion is especially important in large glass areas.

THERMOPANE®

Thermopane insulating glass puts two panes and a sealed-in blanket of dry, clean air between the children and the outdoors. The heat loss you would get through ordinary glass is cut almost in half. Drafts are also reduced so rooms are more comfortable, especially for children sitting close to the windows. *Thermopane* even deadens outside noise that could distract the class.

TUF-FLEX®

Here you see a half-pound ($1\frac{1}{8}$ " diameter) steel ball, dropped from a height of ten feet, bouncing harmlessly off $\frac{1}{4}$ " thick *Tuf-flex* glass. *Tuf-flex* is 3 to 5 times stronger than regular plate glass of the same thickness. If maximum resistance is reached, *Tuf-flex* disintegrates into small, relatively harmless rock-salt-size particles instead of big jagged pieces.

VITROLUX®

Rich color, fused to the back of this clear, heat-strengthened plate glass, adds an air of excitement and youthful beauty to your school. Use it as an exterior facing material (or for interior partitions). Natural resistance to weathering, crazing and checking. Standard maximum size of *Vitrolux* panels is 48" x 84". Special orders up to 60" x 84". Thickness $\frac{1}{4}$ " plus $\frac{1}{64}$ " minus $\frac{1}{32}$ ".

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SCHOOL BUILDING AND MAINTENANCE

PROVIDE ADEQUATE CLASSROOM SPACE AT SMALL COST

Adequate classroom space is now available for all students in the schools of Corpus Christi, Tex. Such was not the case in 1951 when the schools were vexed with crowded classrooms, half-day sessions, and lack of school accommodations.

In 1954 remedial measures were taken. Supt. R. L. Williams and the school board worked with the school staff and local architects in planning and erecting modern, utilitarian structures, with multipurpose rooms, auditorium-cafeterias, and library facilities. Even the students played a part. Such articles as school lockers were produced by the students in their class shops. The architects and contractors also worked with the staff in suggesting cost cuts in construction without lessening the worth of the structures.

Today, Corpus Christi has three senior high schools, eight junior high schools, and 33 elementary schools. By next fall a new senior high school will open, plus expansion of three elementary buildings.

Through cost cutting and co-operation with builders, the school district has been able to construct buildings at \$7.50 to \$10 per square foot. The school district has 37,000 students and there are 20,000 children of preschool age. Occupancy of classrooms is slightly below the national average, with 28.6 students per elementary room, 26.7 for junior highs, and 24.5 for senior highs.

NEW BUILDING ORDINANCE

The newly organized city of Franklin, a rapidly growing suburb of Milwaukee, recently passed an ordinance requiring subdividers to provide proof that adequate grade school facilities are or will be available in the school district in which they are building homes. To do this, the builders would be required to go to the school board of the district and obtain a certificate saying that facilities are available or that "satisfactory arrangements" have been made to provide sufficient school space. Payment of \$500 per home to the school district "shall be proof of said satisfactory arrangements."

SCHOOL FOR PHYSICALLY HANDICAPPED

At Galesburg, Ill., a new school for physically handicapped has been opened. The school is housed in a new building, especially planned and equipped for the children who are being educated. Supt. A. W. Salisbury has been receiving numerous inquiries about the school.

KEEPING RECORDS

The Pittsburgh, Pa., board of education has been faced for many years with the problem of caring for thousands of old school records. When school buildings have become unfit for use, the records have been transferred with the pupils to other schools.

A solution for the complex problem was found in the microfilming of these old records. The method is being tried on an experimental basis, and if found satisfactory, will be continued. The records are important because they are used to settle questions about citizenship, claims to estates, and social security payments.

TESTING PAPER TOWELS

A. L. Johnson, city purchasing officer at Kitchener, Ontario, Canada, in a bulletin of



A.S.B.O. EXECUTIVE COMMITTEE MEETS, PLANS CONVENTION

At the regular semi-annual meeting of the executive committee of the Association of School Business Officials, held March 1 to 5 at the Roosevelt Hotel in New Orleans, the committee, meeting as a corporate board of directors for the first time, adopted a record budget in excess of \$61,000; voted to participate in the newly formed Educational Facilities Research and Service Center; planned to continue its fine relationship with the U. S. Office of Education in connection with the National Property Accounting Handbook project. Plans for the 1957 convention, to be held in New Orleans, Oct. 20-24, were considered: "package deals" will be featured again; section meetings will be held twice this year for the first time; round tables will also be featured. Members of the association's board of directors and its current officers shown above include, from left to right (standing): G. Alvin Wilson director; Elliott C. "Jack" Spratt exhibitors' chairman; Everett Zabriskie, director; Joseph P. McElligott, director; Herschel S. Brannen, director; (seated) J. Harold Husband, first vice-president; Andrew C. Hutson, Jr., president; Percy M. Muir, second vice-president. Photography by Charles W. Foster, A.S.B.O. executive secretary.

the Canadian chapter of NIGP is credited with a method of testing paper towels. He devised a formula which is considered fair to all products. A sample roll from each supplier is asked for, is weighed dry and noted, and is totally immersed in a bucket of water for 24 hours, with a weight on top. After the 24-hour period, the roll is lifted and allowed to drain, and then reweighed. The formula is applied to all rolls. In a trial test of the procedure it was found that there is a difference in water absorption of ten ounces between the high and low limit.

SCHOOL CUSTODIANS CONFERENCE

General sessions and seven sectional meetings will review special problems in house-keeping, heating and ventilating, schoolbuilding maintenance, care of grounds and play areas, supervision, and personnel in the 21st Annual School Custodians Conference to be held June 6 and 7 at the Purdue University Memorial Union Building, Lafayette, Ind. School custodians and school administrators can receive more information from conference director George H. Bush, Education Building, Purdue University, Lafayette, Ind.

SCHOOL ACCIDENTS COSTLY

New York City pays more than \$350,000 a year in judgments and other settlements in accidents involving students and school personnel. The number of accidents in 1956 was placed at 20,000 a year.

The figures were given at the annual convention of the Greater New York Safety Council in New York City. Most of the accidents occurred in school shops, which are now equipped with safety goggles for students and instructors. The city had a loss-of-eye judgment of \$43,000 and a drowning judgment of \$100,000 in the high category.

A suggestion was made that a separate department of safety be created under the board of education. It was pointed out that the board cannot handle all safety problems without such a department.

CUSTODIAL SERVICE STUDIED

At Stafford, Kans., the administrative department has adopted a successful operating procedure in which all business is carefully channeled. One of the results of this plan has been a study of the custodial service field. The board has employed Reuben Bowman as supervisor of buildings and grounds. His duties will be to supervise the custodial service and the summer maintenance program. Supplies and equipment are to remain channeled through the superintendent's office.

LECTURES ON PURCHASING

Maurice G. Postley, former superintendent of school supplies for the New York City board of education, will this year deliver the tenth in his series of annual lectures on public purchasing, at the Maxwell Graduate School of Syracuse University, Syracuse, N. Y.

NEW BOOKS

Municipal Costs and Revenues

By Walter Isard and Robert Coughlin. Cloth, quarto, 111 pp., \$5. Chandler-Davis Publishing Co., Wellesley, Mass.

This research study, based on situations in a number of typical cities, takes up the direct, original costs for newly developed areas in urban communities, especially areas adjacent to large cities. The capital outlays include traffic patterns and roads, sanitary and storm sewers, sanitary sewage treatment plants, schools, and fire and police protection. The study further examines the estimated continuous yearly costs for operating these community services.

School people may well read and digest this report if only to understand that the schools are only one essential public institution which has a sound reason to demand funds for grounds and plant, and for

continued operation. Balanced outlays for all essential services are needed if the whole community and, of course, the schools are to prosper. The present report, based on New England conditions but addressed to the widest possible group, lays down general principles and indicates by current data from (a) residential communities, and (b) industrial-residential areas, how estimates of costs and revenues may be made. The revealing section on school buildings and school operation will shock some school administrators in its frank acceptance of the fact that, according to the social and economic situation of an area, high level, medium, or low level school plants and services must be planned. The extensive tables and graphs make the book a useful working tool for school executives who must prepare—or compare—the school data in local development schemes.

Administration of Public Laws 874 and 815

Paper, 134 pp., 65 cents. Superintendent of Documents, Government Printing Office, Washington 25, D. C.

This sixth annual report of the Commissioner of Education, relating to Public Laws 874 and 815,

shows that a total of 3018 applications for financial assistance were submitted during the fiscal year 1956 from educational agencies throughout the United States. It represents an increase of well over 100 per cent in the number of applications submitted in the initial year of the program. The majority of pupils for whom payment was made, were those who lived on federal property or had a parent employed on federal property. Pupils in this category accounted for \$62,391,530, or 77 per cent of the gross entitlements computed. A total of 378 school districts claimed children living on federal property who were eligible for \$18,429,153, or 23 per cent of the gross entitlements.

In 35 instances the Commissioner made arrangements for funds to be available to another agency for the education of 19,701 children residing on 40 federal properties, at a cost to the government of \$4,759,373. Entitlements under all sections of the act during the year totaled \$85,213,009. This amount benefited more than 6.2 million children enrolled in eligible school districts, and the payment represented an average of 4.6 per cent of the total operating budgets in eligible school districts.

The Yearbook of School Law, 1957

By Lee O. Garber. Paper, 160 pp., \$3. Interstate Printers and Publishers, Inc., Danville, Ill.

This book which follows the general pattern of the earlier works, provides a review of the developments of the year 1956. The chapters on liability, and on teachers, are particularly helpful. Seven particularly significant cases are reviewed at length in Chapter 9. A Supplementary chapter by Charles W. Mickens takes up legal problems of school building contracts, and another by Marshall J. Tyree, discusses the judicial treatment of juvenile delinquents.

Work Place for Learning

By Lawrence B. Perkins. Cloth, 64 pages, \$4.00. Reinhold Publishing Corporation, 430 Park Avenue, New York, N. Y.

Magnificently illustrated with scenes of Perkins' schools, this demonstration of the author's philosophy of architecture tours the school plant in an effort to "express a way of thinking about learning, and about the relationship of the school building to the experience of learning."

An Appraisal of Instructional Sound Motion Pictures and Silent Filmstrips in Elementary School Instruction

By Sister M. Jamesetta Slattery, S.S.J., M.A. Paper, 67 pp., \$1. The Catholic University of America Press, Washington, D. C.

The author concludes on the basis of carefully administered tests, that filmstrips and sound motion pictures contribute to increased learning of fifth grade social studies. In the use of filmstrips as a single medium, the element of participation does not seem to contribute significantly to learning, although it does yield somewhat superior scores.

Administrative and Instructional Provisions for Rapid and Slow Learners in Catholic Secondary Schools

By Rev. Thomas J. Frain, M.A. Paper, 143 pp., \$1.75. The Catholic University of America Press, Washington, D. C.

This study based on returns from 328 secondary schools, indicates that the use of psychological tests and definite attention to fast as well as slow students, is of important value to all concerned. There is great need for the identification of slow and rapid learners, of guidance, and of homogeneous grouping.

Handwriting Made Easy

Paper, 96 pp., \$2.50. Noble & Noble, Inc., New York 3, N. Y.

Both a Teachers' Manual and a refresher course in manuscript writing, transition, and cursive writing for teachers in the lower grades.

Opportunities in Industry as a Skilled Craftsman

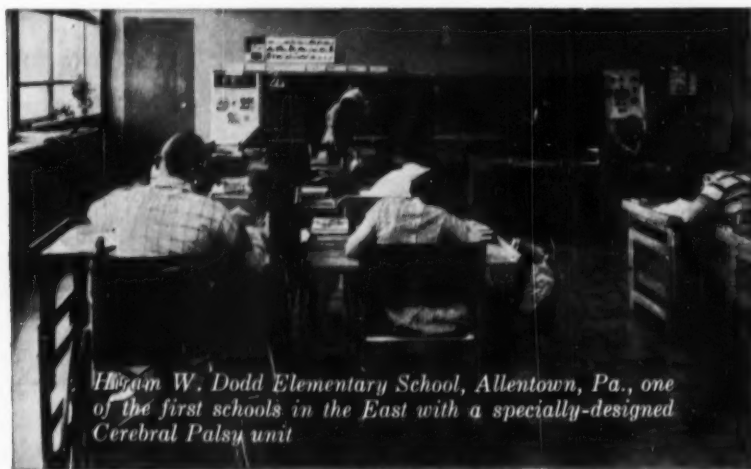
Paper, 12 pp. National Association of Manufacturers, 2 East 48th St., New York 17, N. Y.

This booklet indicates how a student may best prepare himself for an apprentice program while still in high school, and points out courses and special aptitudes required for skill development, work as a millwright, toolmaker, diemaker, maintenance electrician, wood patternmaker, and all-round machinist.

Holland Area School Study

Compiled by James Lugers and A. J. Cook. Paper, 82 pp. Holland Public Schools, Holland, Mich.

This report, compiled by the Holland Area School Study Committee, calls for a new senior high school to house the senior grades. It outlines five alternate plans for consolidating the districts surrounding the city, all of which depend on the city schools services ranging from 10 to 96 per cent.



Hiram W. Dodd Elementary School, Allentown, Pa., one of the first schools in the East with a specially-designed Cerebral Palsy unit

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Official Rectangular Backboard. 1/4" Herculite tempered glass cushioned in Neoprene. Sturdy metal frame. Medart also makes a ruggedly framed, thick plywood rectangular backboard, a favorite for practice.



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Next, they're properly erected. Structural conditions are analyzed by engineering experts; then playing requirements and other factors, including budget, are considered to be sure the *right* backstop is selected. Finally, each is "Tailored-To-The-Job" and expertly erected to guarantee a completely official and satisfactory installation.

Backstops may look alike but it's the many extra years of trouble-free, maintenance-free service that proves every dollar invested in Medart Backstops is a dollar better spent.



Official Fan-Shaped Backboard. Herculite tempered glass cushioned in Neoprene. Double angle welded frame. Will replace any Medart fan-shaped steel backboard. (Not shown) Medart's famous Official fan-shaped steel backboard built of a single 12-gauge shell, channel reinforced.

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adjustable
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Dual-purpose wardrobe rack. Provides two 4 ft. hat shelves, 4 ft. Hook and Hanger rails for coats adjustable in height to all age groups. 4 ft. overshoe shelf. And, on other side a 50" x 48" chalkboard. Portable or stationary.



CORKROBE®

Identical to Chalkrobe but with pin-up cork board instead of "Chalkboard". These units permit complete flexibility in use of floor space. Can be anchored to floor, or wheeled about on casters. Hold wraps out of the way in orderly and efficient manner.



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With closure panels (as original equipment or add-on units) Chalkrobe and Corkrobe units serve as flexible room dividers, movable walls or screens. Widely used to enclose temporary class rooms, to "build" cloak rooms, meeting rooms, etc.



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N.S.B.A. REPORT

W. A. SHANNON Executive Director N.S.B.A.

News and Views

SCHOOL BOARD MEMBERS EXAMINE LEADERSHIP

During the Seventeenth Annual Convention of the National School Boards Association in Atlantic City, N. J., February 14-16, 1957, more than 2000 school board members and superintendents discussed, at 150 tables, the school board member's responsibility for educational leadership and the pros and cons of merit pay for teachers.

The 1958 N.S.B.A. Convention will be held April 17-19 at the Hotel Fontainebleau in Miami Beach, Fla.

The outstanding impression gained from reading the table reports was the emphasis, in a large majority of them, on the responsibility school boards have for leadership as to what the schools of their respective communities shall teach.

The school board member should be completely informed on the entire school program. His knowledge and understanding of the curriculum may be broadened by regular extra board meetings devoted to study and review of the curriculum in co-operation with school personnel in open meetings with the public in attendance.

More attention should be given to educational objectives and curriculum by the board. It was the general feeling that the pressures of the times and of increasing enrollments had forced boards to take more time for business and building problems in the past few years than is either ideal or the desire of the board members themselves.

In discharging responsibility regarding the curriculum, boards of education should avail themselves of the advice of the citizenry including individuals, advisory committees, parents' associations, other community organizations, and teacher groups, so that recommendations to the board will reflect enlightened community thinking. But the board makes the final decisions and then directs the superintendent to implement them, utilizing teacher curriculum committees.

A close second to the curriculum, in amount of attention given in the table reports, was the whole field of school public relations in all its varied aspects. Published written policies by boards of education, open board meetings, with press coverage; the superintendents' annual report printed for public consumption; printed reports from the board through the children to the parents; bulletins and publications to parents, but also the general public who do not have children in school; newsletters for wide distribution; inter-school system publication for teachers, board members, P.T.A.'s and organization leaders; community conferences; radio and television broadcasts; tape recordings; and special public hearings on crucial subjects—these were a few of the ideas given consideration.

In many large school systems an assistant to the superintendent is employed by the board to be responsible for public or community relations. In medium-size school systems, a member of the local press is often employed on a part-time basis; in smaller systems the superintendent of schools must

accept this chore in addition to his regular duties.

PUBLIC RELATIONS

The school board of Sault Ste. Marie, Mich., has initiated a new practice in its public relations program this year. Regular school board meetings are held in the various schools of the district, as a means of improving school-community understanding.

The faculty and parent-teacher association of the host school see to it that the meeting is well attended. The board devotes a portion of time to the discussion of problems peculiar to that building and its area.

MERIT PAY FOR TEACHERS

This idea continues to be the most discussed educational subject of the time. Two basic views expressed at the 1957 N.S.B.A. Convention on attitudes toward the topic were: "We should keep an open mind on merit pay and stop saying it cannot be done."

Teachers must be involved in any merit pay plan; in fact it should be a co-operative program developed by all who are concerned. It was agreed that any merit pay or teacher evaluation plan must be developed and coordinated by four groups—the school board, the administrative personnel, the professional personnel, and the public.

A merit pay system will succeed only if a good basic salary schedule exists, and if it goes beyond the maximum. It should not be adopted until after sufficient study, and only upon thorough understanding and acceptance of a substantial majority of the staff.

WISCONSIN BOARDS DISCUSS MERIT RATING

Featured discussion at the annual joint convention of the Wisconsin Association of School Boards and the Wisconsin Association of School Administrators, held March 21 and 22 in Milwaukee, was the symposium "Relating Teacher Salaries to Competencies." After the problem was stated, objections raised, and experiences with merit rating presented, a lively floor discussion followed. Mr. George E. Watson's keynoting of "Internal Improvements" introduced a panel discussion of state and federal aid: "The \$90 Million Question," with representatives from the state taxpayers' alliance, state department of education, and community governments participating. Mr. Joseph Hamelink, Kenosha, was elected president.

ARGUMENTS FOR MERIT PAY FOR TEACHERS

1. A merit system plan, in the development of which the teachers have played an important role, should be established on the premise that merit pay for better teaching is equitable and sound.

2. Citizens may support a merit system in preference to a single salary schedule because people like to know the good teacher is paid commensurate with her ability.

3. The good teacher welcomes a merit system. Many poor teachers hide behind tenure.

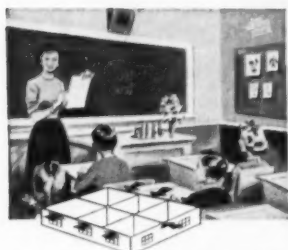
4. One of the best advantages in merit pay would be that teachers could know that they were not at the top of the ladder.

(Concluded on page 84)



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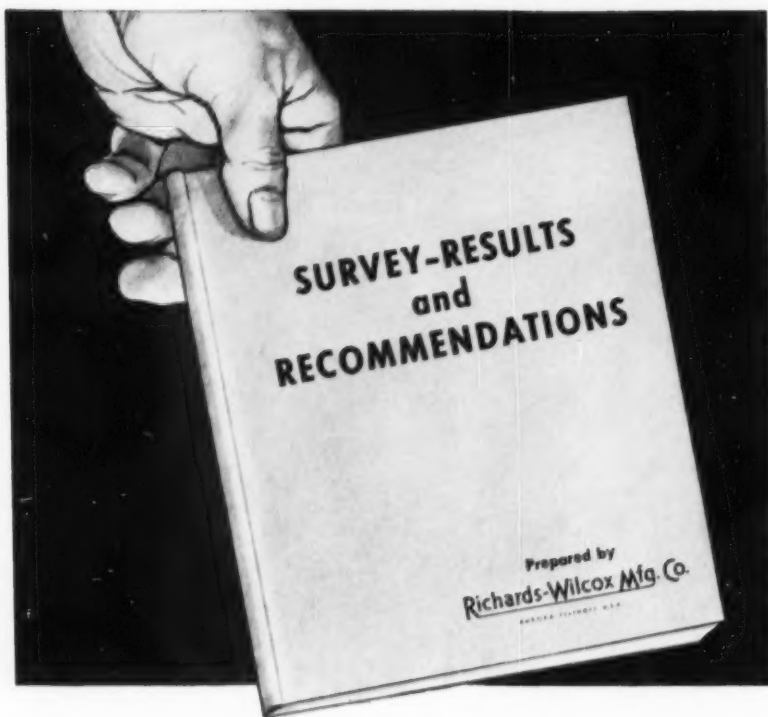
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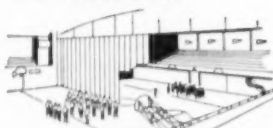
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CLASS ROOMS

N.S.B.A. REPORT

(Concluded from page 82)

5. The teaching profession is losing too many good teachers because of the lack of a merit system.

6. Tenure is the biggest stumbling block. But because of tenure, we need the merit system even more.

7. We believe this issue comes about because the public does not believe it is receiving value in services for salaries paid to many teachers.

8. Merit rating and salary schedule adjustment seems to be a way of attracting men into classroom teaching.

ARGUMENTS AGAINST MERIT PAY

1. Teachers' salaries cannot be compared with professional groups such as engineers, doctors, and dentists, as teachers' training is not so long, teachers don't have large capital outlays to set up offices and they have more job security as compared to competitive practices.

2. Teachers' salaries cannot be compared to industry as teachers have the benefit of lifetime security after a probationary period; have good retirement programs, and do not work on a year-round basis.

3. Merit rating is harmful to the morale of the teaching staff and is incompatible with tenure. It is most difficult to administer fairly and might well be a method of breaking down existing salary schedules.

4. The majority of teachers seem to disapprove merit systems because emotions and politics are pitfalls of the plan.

CONCLUSIONS

The single salary schedule and the tenure laws have bred mediocrity in the teaching profession.

The tenure law has been a source of protecting poor teachers in the system and should be eliminated as one aspect of the whole problem of maintaining a well-qualified staff.

The National School Boards Association should compile information for the use of school boards to assist them in evaluating merit. The N.S.B.A. should take the lead in publishing the pros and cons of merit plans to better educate the public.

It was the general feeling that merit rating for teachers is coming and that we had best face this fact and begin now studying and preparing for it.

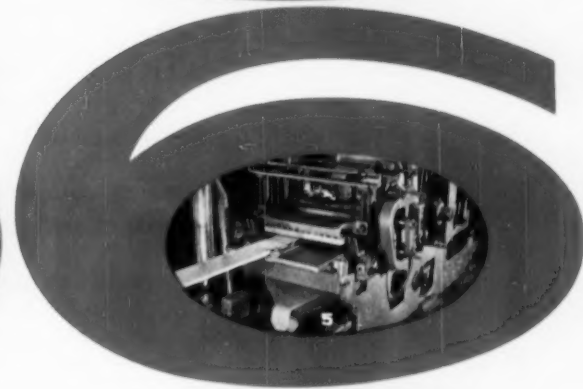
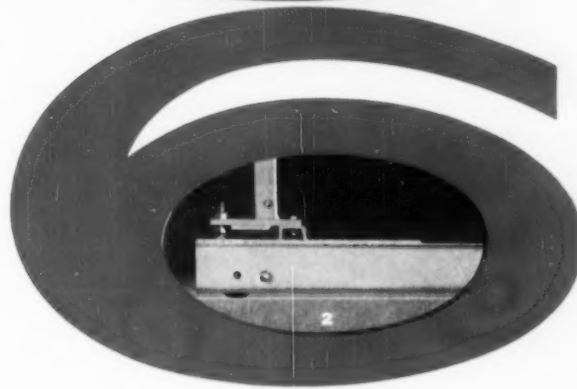
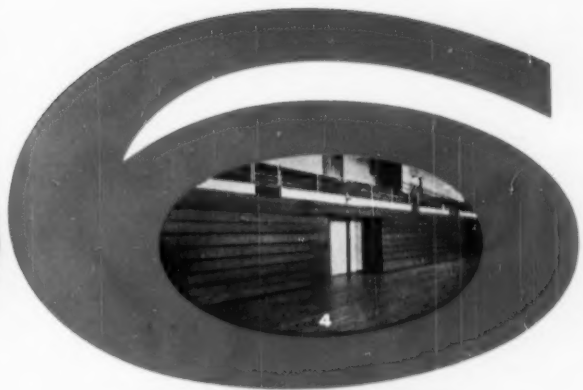
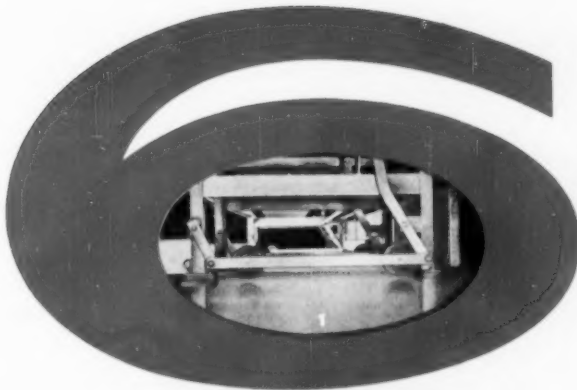
Information, Please!

As a service to JOURNAL readers, this section of the N.S.B.A. Report will print questions and problems encountered by schools; other districts, who have had similar difficulties, are encouraged to offer their experiences, by writing to the correspondent. Letters for inclusion in the column should be addressed to Research Director, the AMERICAN SCHOOL BOARD JOURNAL, 400 N. Broadway, Milwaukee 1, Wis.

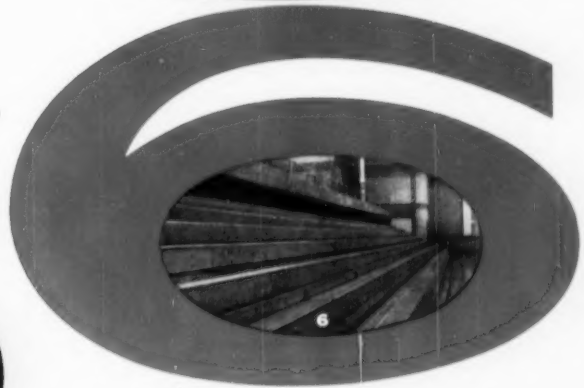
SCHOOL BOARD ELECTIONS...

Among the larger cities of the United States (cities of 100,000 or more) what are the prevailing practices with respect to: size of school boards, terms of office of school board members; overlapping versus non-overlapping terms for school board members; separate school board elections versus general elections?

— Anton Thompson
Director of Research
Long Beach Public Schools
715 Locust Street
Long Beach, Calif.



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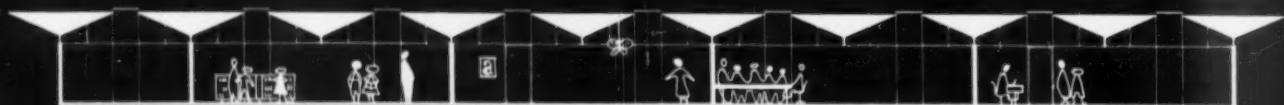
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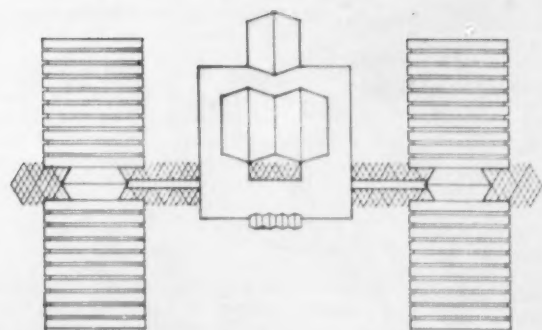
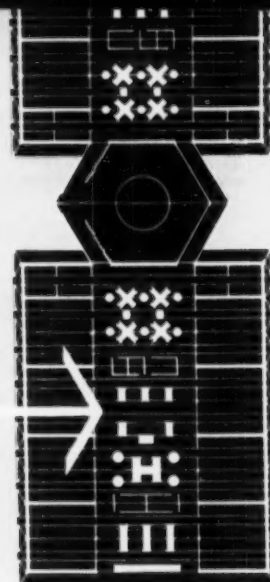
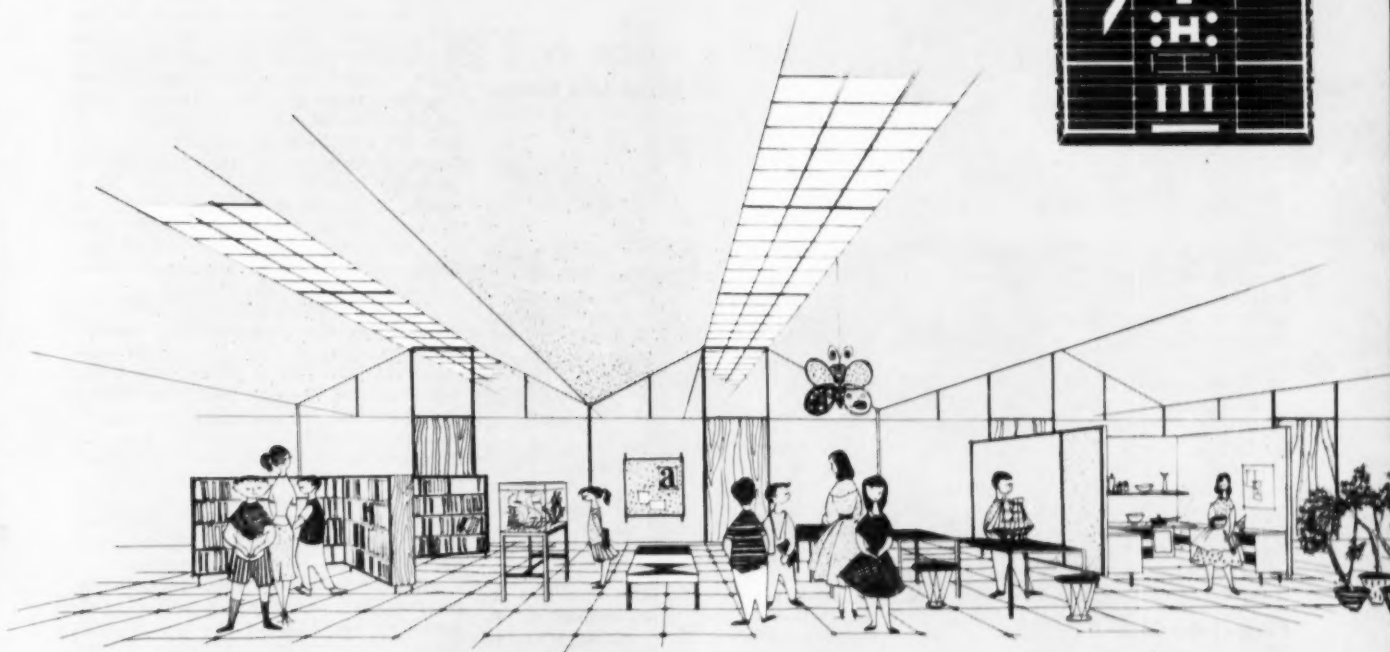
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The Board and Workmen's Compensation Benefits

STEPHEN F. ROACH

Editor, *Eastern School Law Review*
Jersey City, N. J.

The point need not be labored that injuries to employees of school boards can be costly to both the individual employee and the employer board. Particularly is this true, of course, when the injury is sufficient to cause a permanent or even prolonged disability and is one adjudged as having been sustained by the employee while in the course of his employment by the board.

An interesting case concerning this aspect of day-to-day school-board operations occurred recently in Louisiana. Involved were an elementary school teacher and the Pointe Coupee Parish (county) school board. The judgment¹ was handed down in the Court of Appeal of that state.

Facts of the Case

Chase was the sole teacher at a one-room rural school, teaching about 35 pupils in the first eight elementary grades. She was 62 years of age, and had worked for the Pointe Coupee Parish School Board for 28 years.

On October 26, 1954, she sustained a fractured right hip when knocked to the ground by a group of her children in flight from a bat that flew from the loft of the school.

A lower court's award to the teacher of workmen's compensation benefits included \$750.30 (later corrected to \$730.30) for medical expenses, and weekly benefits of \$30 for a 52-week period. The disability and injury, it was held, arose from an accident sustained while in the course of her employment by the parish board. The teacher appealed the award of 52 weeks' compensation, asking that it be increased to allow for permanent and total disability—i.e., to the 400 weeks' maximum (during disability) allowed by the Louisiana statutes.

The Pointe Coupee Parish school board also appealed the lower-court judgment on the technical ground that as a school board it was not to be considered a "public

board" within the meaning of the workmen's compensation statute; and on the further ground that the court involved—the East Baton Rouge Parish—lacked jurisdiction. The board had also offered Chase her job back when the latter's medical condition permitted.

The Issues

This case presented two issues of interest to school boards generally: First, is a school board to be considered a "public board of the State" and hence, among other possibilities, to be included within a state's workmen's compensation law?

And, second, does the fact that a school board offers re-employment to a teacher disabled earlier—by an accident occurring while in the employ of that school board—affect the board's liability with regard to compensation for the earlier injury?

Findings of the Court

The present court first considered the claim that a parish school board was not a "public board . . . of the State."

In its opinion it pointed that the cause for the suit, as originally brought by Chase, arose by virtue of the Louisiana statute which provided that workmen's compensation "shall be the exclusive remedy of every person in the service of the state or political subdivision thereof." Since school boards are "created and regulated by the Legislature," and since they derive "their revenue in part from the State and Statewide taxes," the court concluded that school boards are "public boards of the State or subdivisions thereof so as to render them liable in compensation to their injured employees."

Commenting further that, in cases where an employee seeks a workmen's compensation award, the statute relating to the *procedure* to be followed (by the employee) was to be read in conjunction with the statute *creating* the remedy of compensation, the present court held that Chase had the option to bring suit at either the

domicile of her employing board or, as she had done here, at her own domicile. Accordingly, the claim of the Pointe Coupee Parish board, that the East Baton Rouge Parish court lacked jurisdiction, was disallowed as being without merit.

The court then turned to a consideration of the teacher's claim that she was entitled to 400 weeks' maximum compensation.

It noted first that the testimony showed the following: (1) The plaintiff testified that she was in constant pain from her hip, and that the pain was increased by walking, standing, or remaining in a sitting position for any prolonged length of time. (2) Medical testimony estimated that she suffered from a 20 per cent permanent disability of the leg; that she would continue to suffer pain of some degree for an indefinite length of time; and that a return to school duties would be "beneficial" to her. (3) The duties of a teacher in a one-room country school included not only lecturing from the desk, but also "as a usual matter, such physical activity as teaching the children to dance and sing, supervising their recreation, and perhaps being mobile enough to maintain discipline and the interest of the students."

The present court then commented that in restricting Chase's award to 52 weeks, the lower court had relied upon the testimony that the Pointe Coupee board was willing to give Chase her job back despite any disability for prolonged standing or walking, and had further relied upon the testimony of the doctors that such return to duties would be beneficial to her. From this testimony, in the view of the present opinion, the lower court had concluded that legally Chase was not disabled from returning to her former employment.

After noting that the legal question was not "whether medically a return to work would be beneficial to the injured employee," but rather was "What is her present disability?" the present opinion made the following general points: (1) Recovery for present disability should not be disallowed upon the conjecture that at some time in the future such disability might be lessened by a return to the same or lighter duties. (2) The test is not whether an employee's disability would or would not prevent her securing employment through the forbearance and charity of a particular employer; it is rather whether the employee's disability caused by an industrial accident is a handicap to her obtaining employment in the competitive market for services of her trade, occupation, or profession.

Turning then to the circumstances relating to Chase, individually, the court noted the following specific points: (1) She is unable to stand for any period of time. (2) She is in constant pain—for which pain there is an admitted medical basis. (3) Without serious dispute, she is disabled by the injury from the performance of most of her duties. (4) "We do not believe she is able to perform her duties because she *might* be able to change the teaching methods of a lifetime (and those generally used by other teachers), and to sit immobilized at her desk 90 per cent

(Concluded on page 90)

¹Chase v. Pointe Coupee Parish School Board; cited as 89 So. 2d 466 (La.) (1956) in the West National Reporter System.

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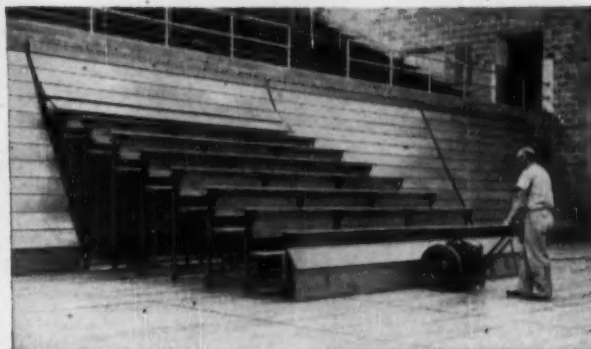
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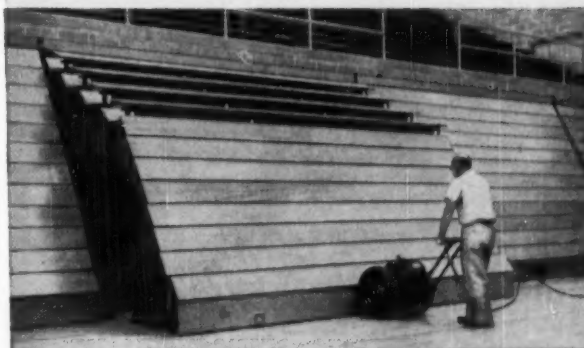
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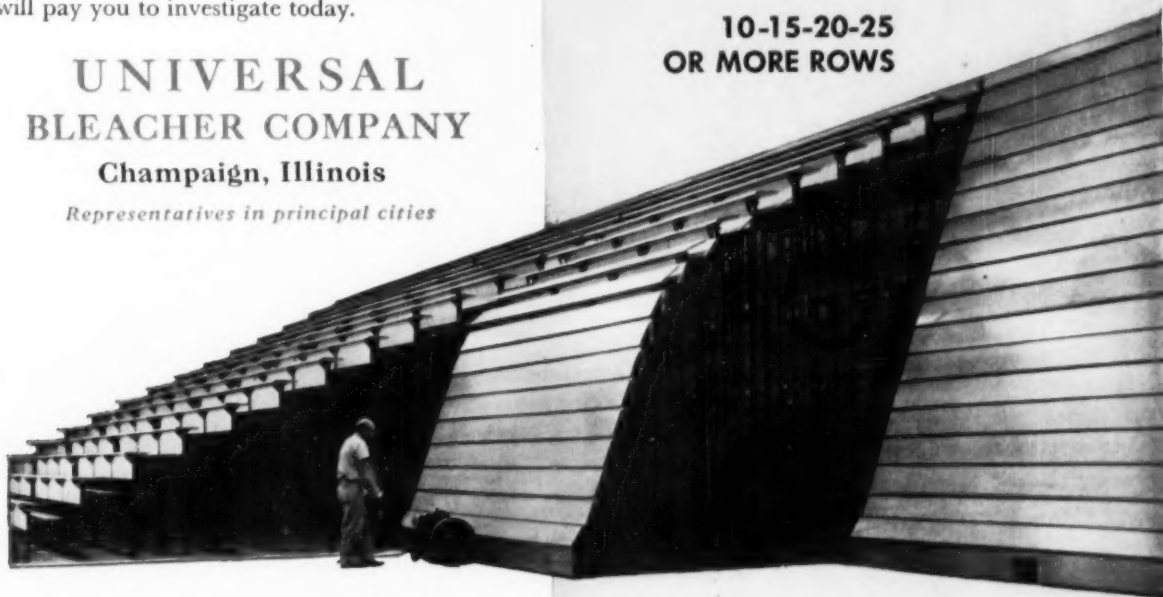


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*T. M. Reg.

**T. M. Reg.—Pat. Pend.

SCHOOL LAW

(Concluded from page 88)

of the time, rather than to stand and to walk." (5) "We are further inclined to accept plaintiff's testimony that she could not satisfactorily teach these 35 children of all ages in the eight different grades situated within the single room, due to the distraction of the pain which she suffers."

Concluding—notwithstanding that her former position had been offered to her—that Chase was totally disabled, within the meaning of the compensation act, from performing duties similar to those of her former employment, the present court held she was entitled to compensation (during disability) for the maximum permissible period. The award of the lower court was amended accordingly.

Significance of the Case

It would appear that the following legal principles, of value in the day-to-day operation of school boards generally, would follow from this opinion:

1. Since it is created and regulated by the legislature, and since it derives its revenue in part from the state and from state-wide taxes, a school board is to be considered a public board of the state or the subdivisions thereof.

2. A statutory provision relating to the payment of an injured employee is to follow in applying for an award (under a workmen's compensation act) is not necessarily to be considered separately, but is to be read

in conjunction with the statute which created the compensation remedy itself.

3. In the determination of an award in a workmen's compensation proceeding, the question "What is the injured employee's present disability?" must be considered, rather than the question "Will the injured employee's return to work be medically beneficial to that employee?"

4. In a workmen's compensation proceeding, recovery for a present disability will not be disallowed because of a conjecture on the part of medical witnesses that, at some time in the future, the disability might be lessened by the injured employee's return to the same or lighter duties with the same employer.

5. In the determination of an award in a workmen's compensation proceeding, the test is not whether an injured employee's disability prevents her from securing re-employment with the same employer, but whether the disability is a handicap to her obtaining employment in the competitive market for services of her trade, occupation, or profession.

insurance. (*Mich. Savings & Loan League v. Municipal Finance Commission of the State of Michigan*, 79 Northwestern reporter 2d 590, Mich.)

★ The architects are not liable for the repair and replacement of a gymnasium ceiling, damaged as a result of the contractor's failure to insert a felt barrier, which is an essential part of a type of roof substituted by the contractor for a type specified in the architect's plans. The contract of the architect with the board of education of Central School Dist. No. 1 of the towns of Allegheny, Carrollton, Humphrey, and Olean, in Cattaraugus County, N. Y., provided for weekly supervision by the architect of the gymnasium construction. The architects were not liable in spite of the fact that daily or more frequent inspections might have disclosed the omission of the felt. The damages of \$10,000 because of the contractor's negligence and breach of contract, entitled the board of education to judgment against the contractor and his surety. (157 N.Y.S. 2d 775, N.Y.)

★ The California State Court of Appeals has decided that boards of education may require a teacher to take an oath that he is not a member of the Communist party. Violation of the oath, under the California Education Code, to support the Constitution of the United States and California and its laws, constitutes unprofessional conduct and is ground for dismissal. In the case of the Laguna Beach Unified School Dist. of Orange County (304 Pacific reporter 2d 59), evidence showed that the teacher had distributed pamphlets urging young people to resist the military service, and other pamphlets condemned the U. N. troops in Korea as murderers. The teacher had denied distributing these pre-Communist pamphlets.

★ A school district is a legal entity, which is completely separate and distinct from a city, town, township, borough, or county, within which it exists and acts. The fact that a school district and other local governmental organizations are coterminous and even have some officers in common, does not change the independent status of the school district.—*Harrell v. City of Jackson*, 92 Southern reporter 2d 240, Miss.

★ Under the Tennessee laws, the superintendent of county schools is a public official by statute and not an employee of the school board, but the board has authority to assign specific duties to him. The superintendent cannot override the authority of the school board in connection with essential details of the school management.—*State v. Yoakum*, 297 Southwestern reporter 2d 635, Tenn.

★ The minutes of a board of education need not be strictly accurate in language. All that is necessary is the substance of an order and fair and reasonable construction of the same. The failure of the secretary of a board of education to attest the minutes of a school district is not a fatal defect in their validity but is an irregularity. *Miss. Laws of 1953, ch. 16. Cheatham v. Smith*, 92 Southern reporter 2d 203, Miss.

In the state of Arizona, a truant officer has authority of a deputy sheriff and may arrest a child who violates the compulsory school attendance laws. The child may be taken into custody without a warrant if absent without proper excuse. In case a child is not a truant, the officer may justify his action provided he has taken the child in custody in good faith and has had reasonable grounds for the belief that the child was absent without a lawful excuse.—*Holmes v. Nester*, 306 Pacific reporter 2d 290, Ariz.

SCHOOL LAW NEWS

SCHOOL FUNDS

★ The Michigan State Supreme Court has ruled that boards of education may not invest school district funds in corporate stocks, particularly in the capital stocks of building and loan or savings and loan associations. The prohibition is constitutional and binding in spite of the fact that the stocks of building and loan associations may be protected by

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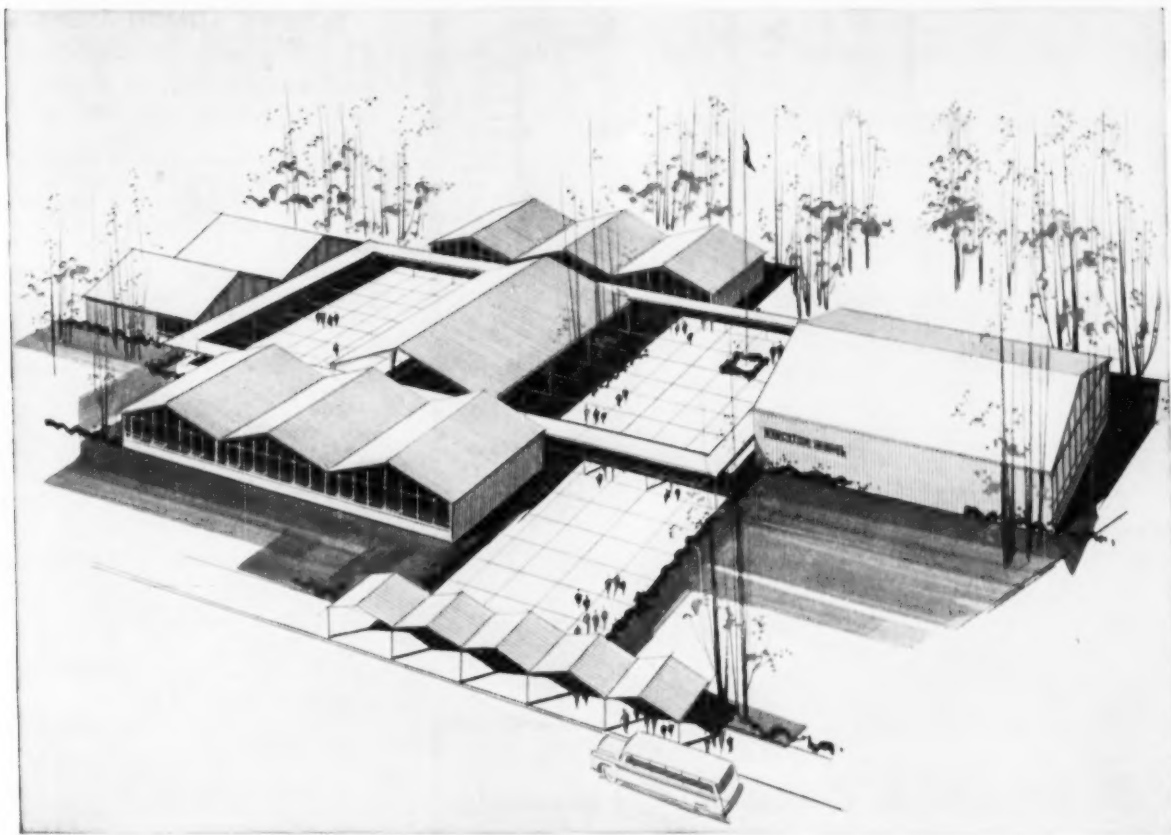
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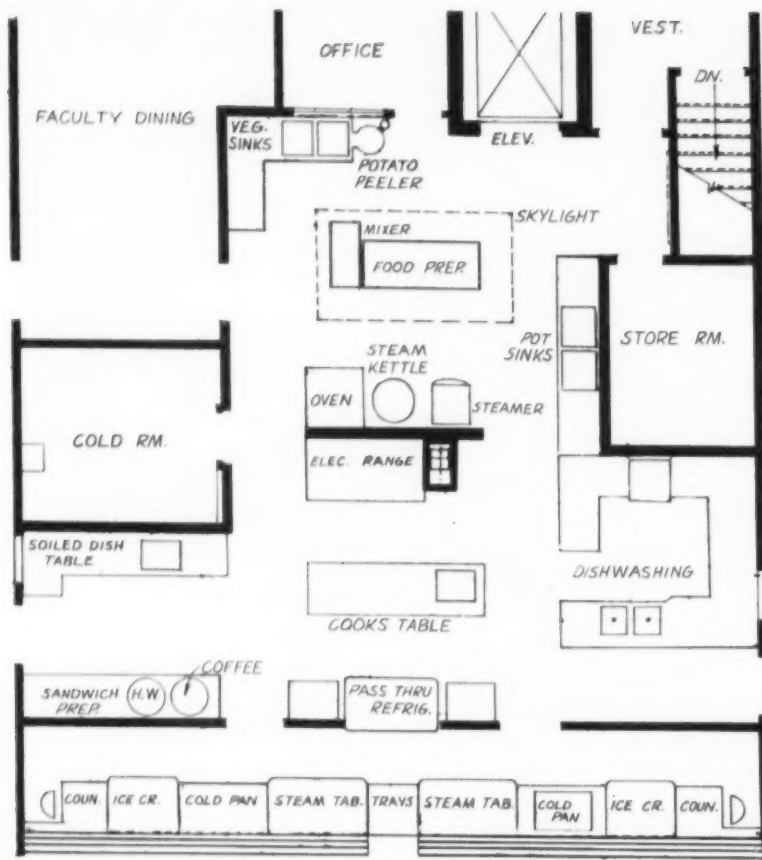
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City _____ Zone _____ State _____ E



SCHOOL LUNCH TRENDS

(Concluded from page 59)

giving them more time for preparing the food, while at the same time reducing fatigue.

All purchases for food in the amount of \$1,000 or more are let out on bid. Purchases for items less than this amount are made privately between the school and the supplier.

Meals and menus are planned several weeks in advance. Menus are mimeographed on 8½ by 11-inch size white paper and each week's menu has several line drawings to coincide with a school event, season, or holiday. For example, flowers or a bird's nest might be found on a menu to signify the spring season or a safety slogan might point up a special safety campaign. A small girl, carrying a roll of bread on a tray, tells about the importance of this item in meals.

The efficient, labor-saving kitchen layout in the Lake Shore Central school in Angola, N. Y.

Lunches without ice-cream cost the students 25 cents, while a type A meal costs 30 cents and includes ice cream. White milk is three cents, while chocolate milk is sold for four cents.

Thirty-two students are used for part-time work in the kitchen, dining room, and counter service. These students, who volunteer for the work, receive their meals free of charge and eat before the first line arrives. Students eligible for this service must have good grades in their school studies and are allowed to work in the cafeteria only when they have a free period between classes. For those students working in the cafeteria, a Cafeteria Club has been formed. Special dinners for this group, and trips are held occasionally, as well as meeting twice monthly. This knits the students into a social group. Besides the 32 students working part time, there are five full-time adult employees, in addition to the director.

CARL C. BYERS RESIGNS

Carl C. Byers, superintendent of the Parma, Ohio, schools for the past 15 years, has announced his resignation effective July 31, to devote full time to public speaking and counseling activities. His contract in Parma has two years to run.

The Parma school district, which includes Parma, Parma Heights, and Seven Hills, had 2850 pupils when Mr. Byers came. The system now has more than 14,000 students and more than 500 teachers. He began his teaching career in Ward township, where he became superintendent at 22. He taught in Gallipolis and at Ohio State University before going to Parma.

A committee has been appointed to select a successor.



CUT Playground ACCIDENTS with

Saf-Pla

the new low cost
**RUBBERIZED
PLAYGROUND**

Saf-Pla can eliminate most of the abrasions, bruises and cuts that result from children falling on hard, abrasive or unsurfaced playgrounds. This new rubberized playground surfacing material generally gives kids a "bounce instead of a bruise" and is not expensive. Playground directors, wherever Saf-Pla has been installed, report a sharp decrease in accidents or, in many cases, **NO ACCIDENTS AT ALL.** Saf-Pla can be applied to black top, concrete or other properly surfaced areas. You owe it to yourself and your school or department to get the facts on this safer, more modern playground surface.

write for bulletin no. 11B . . .

U.S.

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Greatest food service in America

A NATION-WIDE
NETWORK OF
SEXTON BRANCHES



On land . . . on sea . . . in the air . . . wherever fine food is served you'll find Sexton Quality Foods

Swiftly and competently, the nation-wide Sexton delivery fleet is always on the job—supplying much of the food daily required by tens of thousands of public eating places and most of America's hospitals, colleges and other institutional operations. Sexton services and sells directly more of such establishments than any other wholesale grocer in America. Sexton salesmen are thoroughly trained in the requirements of the institutional market. Thanks to 74 years of experience, Sexton commands the best foods the markets of the world afford. The Sexton line is always exceptional in extent and variety—always outstanding in uniformity and quality.

FAMED FOR FINE FOOD FOR 74 YEARS

Sexton

Quality Foods

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PHILADELPHIA • BOSTON • PITTSBURGH • DALLAS
ATLANTA • DETROIT • INDIANAPOLIS

meet a **VIP**
in your school
art program...



...YOUR * "PRANG-MAN"

He is your School Supply Salesman who regularly stocks and sells the nations' best school art materials.

Both counselor and technician... he shares unreservedly all the new ideas and latest information involved from his many field contacts.

He thinks of selling as a service and stands ready to share his experience with you whether an order is for one jar of color or hundreds.

CALL YOUR "PRANG-MAN" TODAY!



**THE AMERICAN
CRAYON COMPANY**
Sandusky, Ohio New York

NATIONAL STATISTICS OF IMPORTANCE TO SCHOOLS*

Item	Date	Latest Figure	Previous Mo.
School Building Construction ¹	Feb., 1957	\$220,008,000	\$233,941,000
Total School Bond Sales ²	Feb., 1957	\$198,929,011	\$228,984,018
Latest Price, Twenty Bonds ²	Mar. 21, 1957	3.07%	2.98%
New Construction Expenditures ³	Mar., 1957	\$255,000,000	\$235,000,000
Construction Cost Index ⁴	Mar., 1957	654	650
Educational Building, Valuation ⁵	Dec., 1957	\$ 99,600,000	\$120,600,000
Wholesale Price Index ⁶	Apr. 2, 1957	116.9	117.0
U. S. Consumer's Prices ⁶	Feb., 1957	118.7	118.2
Population of the U. S. ⁶	Feb. 1, 1957	170,045,000	169,661,000

*Compiled Apr. 8, 1957.

¹Data from Dodge Statistical Research.

²by arrangement with F. W. Dodge Corporation.

³Bond Buyer.

⁴Joint estimate, Depts. of Commerce and Labor.

⁵American Appraisal Co., Milwaukee.

⁶U. S. Dept. of Labor.

⁷U. S. Dept. of Commerce.

FINANCE & TAXATION

SCHOOL BOND SALES

During the month of February, 1957, permanent school bonds for school construction purposes were sold in the amount of \$198,929,011. The largest sales were made in:

California	\$23,685,000	Minnesota	\$ 4,576,000
Colorado	6,900,000	New Jersey	10,484,000
Connecticut	5,289,000	New York	35,655,000
Illinois	5,776,000	North Carolina	6,000,000
Indiana	4,855,000	Ohio	7,939,000
Louisiana	4,972,000	Pennsylvania	11,806,000
Michigan	17,200,000	Texas	16,999,011

As of March 21, 1957, the average yield of 20 bonds was 3.07 per cent.

SCHOOL CONSTRUCTION

During the month of February, 1957, Dodge reported contracts let in 37 states east of the Rocky Mountains for school buildings with a total valuation of \$177,650,000. For the 11 western states, Dodge reported projects let for a total valuation of \$42,358,000. The total for the 48 states was \$220,008,000.

SCHOOL BONDS

★ Butler, Pa. The Butler area joint senior high school authority has requested bids on a \$6 million bond issue, to finance the construction of a 2053-student joint senior high school.

★ New Castle, Pa. The school board has sold \$300,000 in school bonds, at an interest rate of 3 per cent. The proceeds will be used to finance school building improvements.

★ Oyster Bay and Babylon school districts, in New York state, will receive bids on \$3,795,000 worth of school bonds.

★ The Washington township board near Toledo, Ohio, has voted to place a \$5,000,000 bond issue before the voters next November.

★ Dunellen, N. J. The school board has employed the educational firm of Engelhardt, Engelhardt & Leggett, New York City, to conduct a survey of the school plant. The survey will serve as a guide in the planning of a school building program and its financing.

★ Minneapolis, Minn. The board of education has approved a proposed school bond program, to provide \$3,480,000 in school bonds for 1957 and \$2,375,000 in 1958.

★ Chicago Heights, Ill. Work is in the planning stage for a new school building, to contain 12 classrooms, a health room, an all-purpose room, a kitchen, and rooms for special education. The building, which will be completed in 1958, is being financed with a bond issue of \$350,000.

★ Crossville, Ill. Following the approval of a bond issue, the board of Dist. No. 2 has

completed plans for a high school addition, to include a home economics department, two commerce rooms, a science laboratory, and a general agriculture room. The building is being financed with a bond issue of \$185,000.

★ The Los Angeles, Calif., schools have sold \$20,000,000 in school bonds to a banking syndicate at a price of 101.139 and interest of 3 1/4 per cent.

SALE OF STATE BONDS IN COUNTIES

The Florida State Board of Education has issued bonds in behalf of the state's county school systems, for the purpose of providing school buildings and other facilities under the Florida school laws.

The security of these bonds consists of a constitutional pledge of the first proceeds from the Motor Vehicle Tax, and which are placed monthly in the County Capital Outlay and Debt Service fund of the State Treasury, in amount equal to the product of \$400 multiplied by the number of instructional units in the state each year. The state board may not issue bonds in an amount greater than 75 per cent of the amount which can be serviced from the Motor Vehicle license taxes accruing to each county.

The state board has issued to the counties a total of \$95,128,000 in S.B.E. bonds since November 24, 1953. This has partially relieved an acute classroom shortage in a rapidly expanding school system.

INVEST SPARE FUNDS

The Kalamazoo, Mich., board of education regularly invests its spare funds in U. S. Treasury notes, bills, and bonds. At its February, 1957, meeting, the board invested \$120,000 construction funds in four months' Treasury Notes; \$57,000 of library building funds in Treasury Notes due December, 1958; \$150,000 of general funds in Treasury Bills due in 80 days; and \$100,000 of building and site funds in bonds due December, 1958.

★ Cleveland, Ohio. The school board has found that it has only half enough money to build the "critically needed" schools, proposed by Supt. Mark C. Schinnerer. The board has \$4 million on hand, but Mr. Schinnerer wants \$8 million for school expansion this year. Clerk-Treasurer Michael Wach reported that only 50 per cent of the amount proposed is available this year. Board member R. W. Findley favored abandonment of the board's pay-as-you-go policy and the submission of bond issues, in order to provide new schools as needed.

★ Placer, Calif. The union high school board has approved a new bond retirement plan, covering a 20-year period, with an average increased tax of 40 cents on each \$100 of assessed valuation. The action was held necessary in order to finance the proposed decentralization and expansion program. The board has also ordered an increase in the general liability insurance from \$200,000 to \$500,000.



DON'T CUT CORNERS ON SCHOOL BUS SAFETY!

You buy good school bus equipment. You keep it well maintained. You put mature, experienced drivers behind the wheel. Yet, regardless of these precautions, you may be overlooking the most vital safety feature your buses can have—*air brakes*!

Look at it this way: Virtually every commercial bus in the country is air brake equipped. Why? Because commercial bus operators have learned from experience that air brakes are the fastest,

surest, most dependable stopping power under every operating condition.

They can't take chances on passenger safety. Neither, of course, can you. So don't cut corners on school bus safety. Make certain your students receive the proven protection of the world's safest braking system by insisting that all bids submitted on new school buses include air brakes.

The choice is yours—make it the safest one.

Bendix-Westinghouse

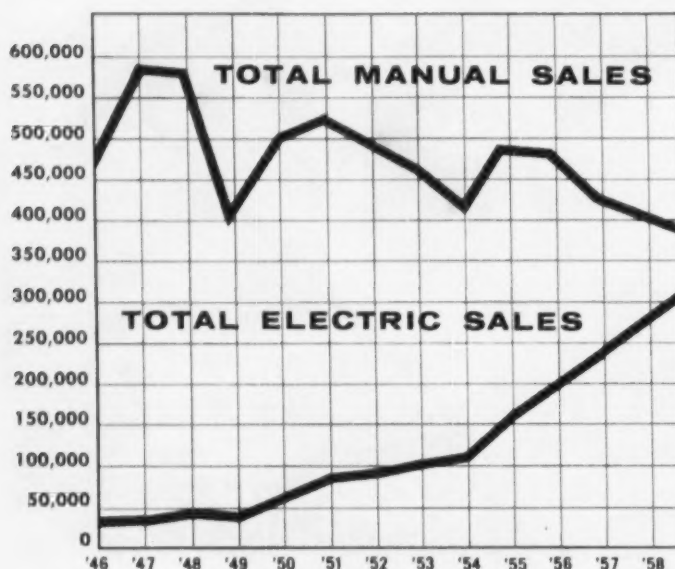


AIR BRAKES

BENDIX-WESTINGHOUSE AUTOMOTIVE AIR BRAKE COMPANY • General offices and factory—Elyria, Ohio. Branches—Berkeley, Calif. and Oklahoma City, Okla.

Will your students be able to fill

INEVITABILITY OF ELECTRIC TYPEWRITERS



By 1958, 43% of all typewriters purchased for business use will be electric—and the IBM is the favorite by far!

If you are interested in IBM's extensive educational services program, write to:
L. M. Collins, Director,
Educational Services Dept.,
IBM Electric Typewriter Division,
545 Madison Avenue,
New York 22, New York

The above graph has a message of great importance to business educators. It shows that in 1958—when some of your *present* students will be graduating—almost half of the typewriters purchased for business offices will be electric. So, to prepare your students for their future jobs—training on the electric typewriter is a "must."

Figures prove, too, that the IBM is the favorite electric by far—it outsells all other electrics *combined*! So, train your

IBM

**ELECTRIC
TYPEWRITERS**

—OUTSELL ALL OTHER

this chair?



students on the typewriter they'll be most likely to use—the IBM Electric!

School tests prove, too, that students type more rapidly and accurately on any machine—even manuals—when they have been trained on the IBM. With the IBM you can simplify stroking and carriage drills—advance more rapidly into over-all typing techniques to turn your students into competent, confident typists faster.

ELECTRICS COMBINED!

Typing Tips to Students from the "Teaching Typewriter"— the IBM!

To center headings or titles correctly for the handsomest results, here's the easy way:

1. *Divide the total number of spaces in the writing line by 2, and move the carriage to that point on the scale.*
2. *Backspace one for every 2 characters and spaces in the heading to be centered.*
3. *Your carriage will be at the correct point to begin typing the heading.*

When you wish to type a single character down the length of a page, it is not necessary to set a margin or a tab stop. Here's the easy way to do it on the IBM Electric:

Simply move your carriage to the desired position on the page and type the single character. Then immediately position your first finger on the right hand on the back-spacer, and put the second finger on the return key. Depress both keys simultaneously.

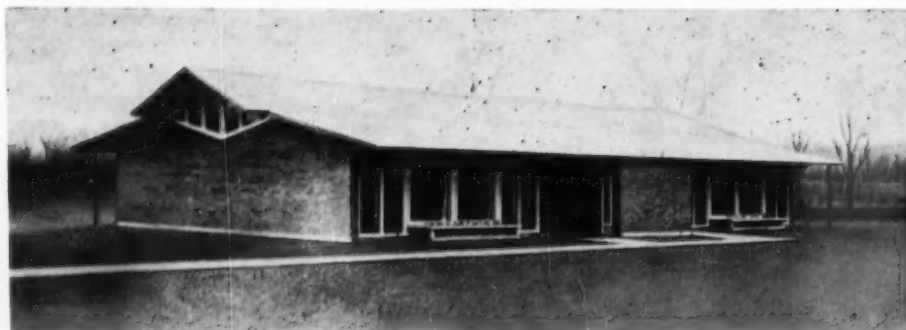
In one fast operation, you will have moved down one line and back one space, and your carriage will be in the correct position for typing the next character.

When you are typing manuscripts of several pages and you want them to look uniform, here's the way to make sure you end each page on the same line:

Prepare a strip of paper numbered vertically from 1 to 33 single-spaced. With cellophane tape, fasten the strip around the extreme left edge of your platen. Align your first page with 1 and note the number on which you end the page. Then stop typing at the same number on each succeeding page.

REMEMBER . . . the efficient way turns out to be the easy way to do things. So master these efficiency "tricks" to help yourself do the best job when you're out in the business world!

A specially designed
and built
two-classroom building
to facilitate extensive
experimentation
in thermal
environment . . .



THE LENNOX LIVING LABORATORY

What is the "optimum thermal environment" for learning? Is there a real difference between heating and ventilating needs of children at the various elementary and secondary grade levels? Are present-day heating and ventilating codes designed more for the drafty, poorly insulated schools of yesterday than the modern, well-constructed buildings?

These are some of the questions which

it will now be possible to explore because Lennox Industries, Inc., a large manufacturer of heating and ventilating equipment, has designed and built a \$50,000 "Living Laboratory" school building for thermal experimentation.

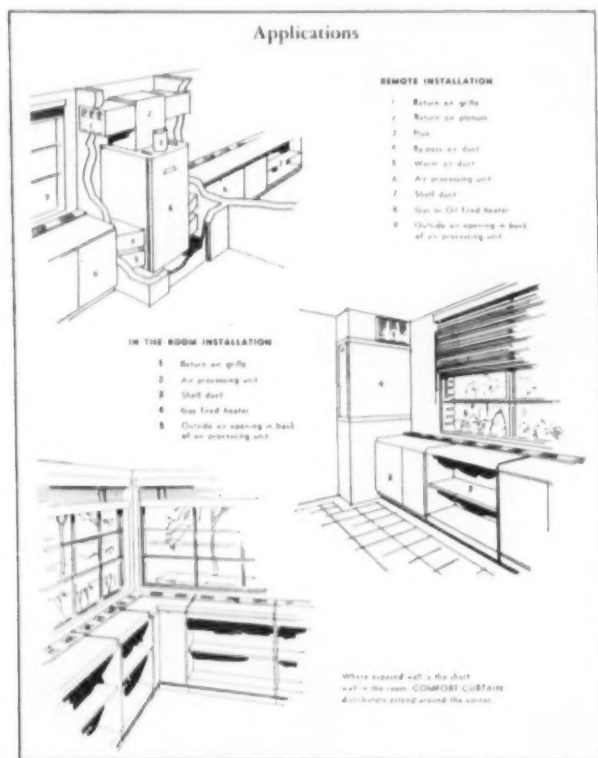
For On-the-Spot Research

Located on the grounds of the Lennox plant at Des Moines, Iowa, the attractive

new two-classroom building will permit educational plant experts, led by Dr. S. J. Knezevich of the University of Iowa, and Lennox heating engineers to do basic, on-the-spot research on a long-term basis through the co-operation of elementary and secondary classes from the nearby Altoona, Iowa, Consolidated School District.

The dedication of this unique building,

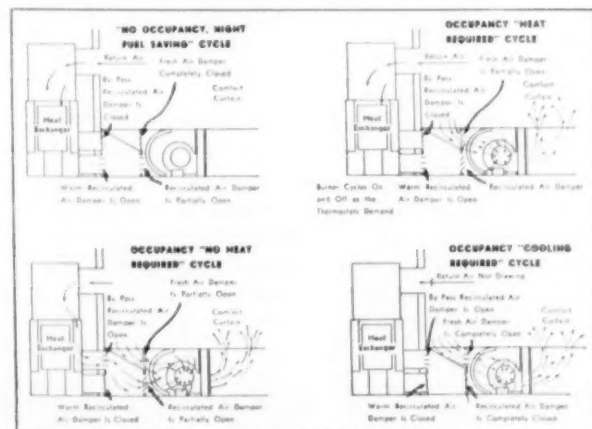
(Concluded on page 100)



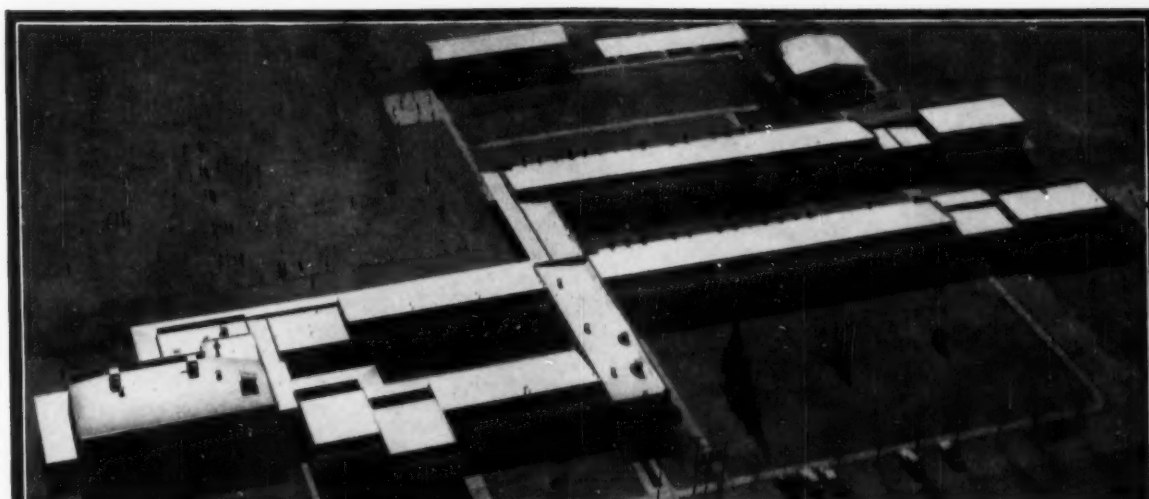
Two graphs illustrating the Lennox approach to schoolroom heating and ventilating as installed in the firm's "living laboratory."

Below are drawings of the system in its various "air distribution cycles."

At the left are shown the physical applications of the system to the two-room units.



"So that they will last practically forever..."



Brilliant Masticote aluminum coating on flat roof of Bakersfield's Greenfield Union School reflects hot sun, keeps interiors cooler.

At Lakeside Elementary School, years of weatherproof protection are assured with Masticote aluminum roof coating, manufactured by Madison Paint Co., Cleveland, Ohio.



These California schools are protected with Masticote Aluminum Roof Coating

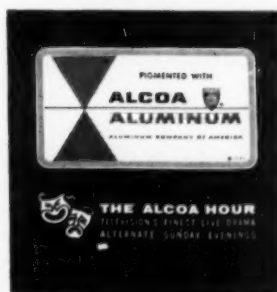
School buildings of the Greenfield Union District, Bakersfield, California, get protective applications of Masticote Roof Coating, pigmented with ALCOA® Aluminum, every seven years. Although Masticote has set performance records far in excess of seven years, Greenfield educators subscribe to the stitch-in-time maxim.

Mr. C. P. Minor, Greenfield district superintendent, writes, "We believe in preventive maintenance rather than corrective repair . . . a protective coating of Masticote every seven years provides protection for our composition roofing so that it will last practically forever . . . we believe that Masticote gives us the best protection and insulation that it is possible to buy."

By reflecting the sun's heat rays, aluminum roof coatings lower inside temperatures as much as 15°. One coat positively seals any surface—iron, steel, brick, masonry, wood, composition—with a moistureproof shield

that won't sag or run under tropic sun, or alter under frigid cold. Aluminum roof coatings can be applied with an ordinary roofing brush or spray gun . . . come ready mixed . . . require no thinning or heating.

ALCOA does not make roof coatings, but we will gladly refer you to reputable manufacturers who do. Send today for our FREE booklets, *Painting With Aluminum* and *Aluminum Asphalt Roof Coatings Make Time Stand Still*. Use the coupon.



Paint Service Bureau, Aluminum Company of America
1799-E Alcoa Building, Pittsburgh 19, Pennsylvania

Please send me your FREE booklets:

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I am interested in protecting

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Company _____
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BEST BUY IN FLAGS for SCHOOLS

BULLDOG—most famous name in cotton bunting flags—U. S., State and School flags for outdoors. Rugged, reinforced with nylon thread.

STATE FLAGS of complicated design now available in new Detco Process. Accurate and authentic in design and color. Very economical.

GLORY-GLOSS—U. S., School and State Flags for indoors and parades. Beautiful, lustrous and economical.

Ask about Dettra's movie "Our U. S. Flag"—The Freedom Foundation Award winning 16 mm color sound film... the ideal way to tell the story of our Flag.

For complete information call your local Dettra Dealer or write direct to—Dept. AJ

DETTA FLAG CO., INC.
OAKS, PENNSYLVANIA

Flagmaker to the Nation for more than 50 years

LIVING LABORATORY

(Concluded from page 98)

designed by architect R. C. Ovresat of Perkins and Will, also enabled Lennox Industries to introduce their new "Comfort Curtain" classroom heating and ventilating system. This new system combines residential-type warm-air heating equipment with a newly designed ventilating and distributing system. Manufacturer's tests have shown this system to produce a continuous circulation of fresh air held to within one degree of thermostat setting.

A New Approach

According to John W. Norris, Lennox president, the "Comfort Curtain" equipment will heat and ventilate schoolrooms in a manner that comes closer to an ideal system than existing equipment. "And, it will do the job at a saving of from \$800 to \$1,200 per classroom over the present cost of central heating, ventilating systems."

The "Comfort Curtain" consists of a residential type of forced-air furnace for each two classrooms combined with a new air-handling development that mixes correct amounts of outdoor air with the recirculated air in the room.

Advantages claimed, in addition to lower initial installation costs per classroom, are simplicity of operation, the possibility of maintenance and repair by any qualified residential heating man, lower fuel costs because of no long transmission pipes and lines; and no danger of all classrooms in a school being unheated during a heating equipment breakdown.

A basic cooling unit has also been designed for quick installation in the Lennox system for air conditioning. And the heat exchanger or furnace can operate on gas, oil, or electricity.

Results to Be Available

The results of the thermal environment testing done by Dr. Knezevich and his associates will be made available to school planners as soon as results are obtained.



Two views of the deluxe interior of the primary room of the test building. At left is the rear of the classroom, with the brick heater room containing the test equipment. Louver above teacher's head permits intake of recirculated air into unit. Below is an illustration of the outside wall with the full-length bookshelf duct of the "comfort curtain" system.





What's the Answer?

For years school men have been indoctrinated with the idea that all mechanical folding bleachers are alike. This conception has caused many purchasers of bleachers great disappointments — in the workability, material content and physical appearance of bleacher installations.

The Berlin EZ-A-WAY bleacher is in a class by itself, and far exceeds any other mechanical folding bleacher made in all the important requirements for this type of product. It is true you might pay a premium for Berlin EZ-A-WAY bleachers in some instances — but we assure you the extra money will be well spent. If given an opportunity to show Berlin bleachers and prove their superiority, we feel price differential is more than justified.

Many so-called "new" bleachers are appearing on the market and "riding the crest of popularity" of mechanical folding bleachers. Many well meaning superintendents and school administrators are being confused by salesmanship, low prices and the assumption that mechanical folding bleachers are all alike. Check and compare before you purchase bleachers. Know the product . . . know the company behind that product.

The Berlin EZ-A-WAY bleacher is the result of many years of experimentation and development and is the product of a company known for over 48 years as steel fabricators of the highest regard. The Berlin Chapman Company's code of high standards is reflected throughout its product. All Berlin EZ-A-WAY bleachers are custom made to your requirement and are not the result of an accumulation of sub-assemblies and inter-dependent parts manufactured in various parts of the country. The Berlin EZ-A-WAY bleacher is manufactured at Berlin, Wisconsin, under one company, one management and one factory. All parts are made by the Berlin Chapman Company, sold through licensed dealers and installed by Berlin Chapman installation engineers or factory trained personnel. Give our sales representatives an opportunity to explain our high standards and superiority. You will be glad you did!

Write for technical information as well as other facts that might assist you in deciding upon which is the best bleacher to buy for your particular need.

Wanisting

Sales Manager, Bleacher Division
BERLIN CHAPMAN CO., Berlin Wisconsin

BERLIN
SEATING
ENGINEERS

BERLIN • WISCONSIN

ideal for both
classroom and office
BORROUGHS
42" Cabinets



Practical! Efficient! Attractive! Excellent value!
Produced by Borroughs! What more could
you ask for in a steel cabinet? Sliding shelves
adjustable, quick-as-a-wink, without bolts...
you slide them in wherever you want them...
that's all there is to it. Easy-gliding, sliding
doors can be removed in a jiffy. Cabinets
38 1/4" wide outside—available in depths of
12" and 18". Choice of 5 colors. See your
dealer. If he does not have Borroughs cabinets
in stock, he can get them for you at once.
So see the Borroughs line before you buy.



with steel
sliding doors



with glass
sliding doors



open face
no doors

BORROUGHS MANUFACTURING CO.

A Subsidiary of The American Metal Products Company of Detroit

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KALAMAZOO, MICHIGAN

FOR MODERN ADMINISTRATION

Rauland

MODEL S224

LOW-COST SCHOOL

INTERCOMMUNICATION SYSTEM



2-Way Communication and Program Facilities

- ★ For up to 48 rooms
- ★ "All-Call" feature
- ★ Volume level indicator
- ★ Remote mike operation
- ★ Matching radio and phonograph available

This compact, precision-built system providing low-cost 2-way communication facilities is ideal for efficient supervision of all school activities. Announcements, speeches and voice messages can be made by microphone to any or all rooms (up to a total of 48); speech origination from any room to the central cabinet is available. Includes "All-Call" feature for simple instantaneous operation. Has input connections for remote microphone, radio, phonograph and tape recorder. Housed in compact, attractive all-steel blue-gray cabinet suitable for desk or table. When combined with the S404 matching radio-phonograph below, a complete centralized school sound system is achieved at a remarkably low cost, within the means of even the smallest school.

**MATCHING MODEL S404
RADIO AND PHONOGRAPH**

Combines perfectly with the S224 system. Provides complete facilities for the distribution and control of radio and phonograph programs. Includes precision-built FM-AM radio tuner and high quality 3-speed record player. The matching S404 and S224 units may be stacked compactly to conserve desk space. Together, they form a complete and versatile sound system offering either communication or program facilities at the lowest cost.



Other RAULAND School Sound Systems are available with capacity up to 160 classrooms. RAULAND Public Address equipment is also available for auditorium and athletic field sound coverage.

RAULAND-BORG CORPORATION

- Rauland-Borg Corporation
- 3515 Addison St., Dept. R, Chicago 18, Ill.
- ☐ Send full details on all RAULAND School Sound Systems.
- We have _____ classrooms.
- Name _____ Title _____
- School _____
- Address _____
- City _____ Zone _____ State _____

Are you really safeguarding your school funds and property?

These
are actual
headlines
which have
appeared recently
in newspapers
throughout
the country.



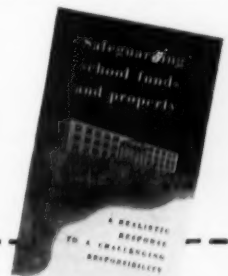
Yes, the headlines you see on the newspaper facsimiles above are *not faked*. They are very real, and they point out clearly the need for bonding *all* school personnel.

Blanket Bonding — covering under a single bond *all* dishonesty losses caused by *any* employee — is not new. Progressive business firms long ago recognized the need for a broad blanket bonding program.

With greatly increased exposures in present-day school systems, more and more school boards

are taking similar steps. Why don't you find out how **ÆTNA PUBLIC EMPLOYEES BLANKET BONDS** can protect your school funds and property. . . the far better, far safer, more business-like way?

WRITE TODAY FOR THE FREE BOOK-
LET, "SAFEGUARDING SCHOOL FUNDS
AND PROPERTY"—a realistic approach
to a challenging responsibility.



ÆTNA CASUALTY AND SURETY COMPANY

Affiliated with
Ætna Life Insurance Company
Hartford 15, Connecticut



Ætna Casualty and Surety Co.
Department B-2
Hartford 15, Connecticut

Kindly send me a copy of your booklet, "Safeguarding School Funds and Property."

Name _____
Title _____
Address _____
City _____ State _____

News of Products for the Schools

ALUMINUM FOLDING PARTITION

A new aluminum folding partition used to divide school gymnasiums has been introduced by Richards-Wilcox Mfg. Co. Called the "FoldeR-Way" it is similar in construction to the first aluminum folding partition installed in the U. S.—a partition installed by Richards Wilcox at West Senior High School, Aurora, Ill. It has modern honeycomb-type doors which are available in six different facings: gold-anodized aluminum, stucco-embossed aluminum, leather-embossed aluminum with a linoleum wainscot, vinyl plastic, birch plywood, and the conventional duck covering with a tempered hardboard wainscot.

(For Further Details Circle Index Code 0282)

COMPACT DORMITORY FURNITURE

Applying the "built-in" principle to dormitory furniture, Royal Metal Mfg. Co., Chicago, Ill., has produced a piece of furniture that combines, in a single unit, two wardrobes, three overhead cabinets, and a six-drawer dresser and mirror. The latest in their Woodridge line of furniture, it is modern in design and construction. Wardrobes and cabinets are available in 30-, 36-, and 40-in. widths. All units are 24½ in. deep and 95½ in. high, just right for 8-ft. ceilings.



Modern Dorm Unit

The inner frames of each unit are made of steel. Wood panels and plastic tops are individually removable. The drawers are finger grooved so that hardware may or may not be used. Each drawer is mounted on silent nylon glides and contains an automatic drawer stop arrangement.

(For Further Details Circle Index Code 0283)

SOUND-SYSTEM RECORDER

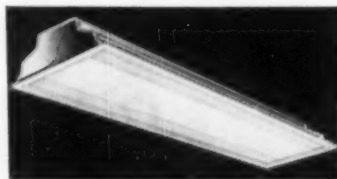
A new tape recorder, Model 787A, designed especially for use in school sound systems has been introduced by the Bell & Howell Co., Chicago 45, Ill. Equipped with a thin base dual tape, the recorder affords up to two full hours' recording and playback on each side of the tape. Minus a speaker and case it is ready to install in a sound-system panel. The unit is mounted in fawn wrinkle-finished steel frame plates with 14 by 19-in. dimensions. The measurements are standard for commercial sound-system vertical mounting racks.

Other favorable features of the recorder are: a 7-tube 8-watt amplifier with push-pull output; automatic shutoff when the end of the tape is reached; resettable footage counter; push-button controls; automatic record-erase lock; fast forward and rewind; and blower-cooled motors.

(For Further Details Circle Index Code 0284)

MANY-PURPOSE LIGHTING

A new line of integrated recessed lighting which is compatible with 63 different ceiling systems has been developed by Day-Brite Lighting, Inc., St. Louis, Mo. Fixtures in this line are shallower 12- and 24-in. units designed



For Acoustical Ceilings

for acoustical ceilings using exposed runner, exposed panel, exposed grid, concealed mechanical, metal "Tee-Bar" suspension, and conventional plaster ceilings. A choice of enclosing elements include plastic Cleartext, egg-crate louver, or low-brightness Controlens for 12-in. fixtures and translucent plastic, egg-crate louver or glass for 24-in. fixtures.

(For Further Details Circle Index Code 0285)

NEW COLOR TILE

A third cork hue, K-550, Tangiers, has recently been added to the Azrock asphalt-tile line. This new color now gives Azrock three shades in natural cork hues—light, medium, and dark, all available in ¼-in. thickness. As with other Azrock floor products, the new tile is prewaxed and prepolished and can be installed on, above, or below grade on concrete subfloors, or over sound, smooth wood subfloors. Azrock tile is produced by the Uvalde Rock Asphalt Co., San Antonio, Tex.

(For Further Details Circle Index Code 0286)

GRIGGS TEMPO FURNITURE

Modern classroom furniture that combines graceful lines with durable structure has been introduced by Griggs Equipment Co., Belton, Tex., in a new line they call the Tempo line. Both the No. 940 chair and the No. 970 desk in this line feature smartly tapered legs



Clean, Functional Lines

swaged from seamless steel tubing. The chair has a back and seat of 100 per cent hardwood plywood and the desk top is available in hardwood plywood or a new wipe-clean "Plastex" material. All pieces come in five colors of infra-red oven-baked enamel, and in a full range of sizes.

(For Further Details Circle Index Code 0287)

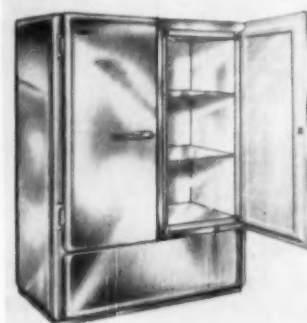
FLEXIBLE ROLLING GYMSTANDS

Gymstands well designed for gymnasiums that are used for a variety of activities can be obtained from Wayne Iron Works, Wayne, Pa. Their latest rolling-model stands save time in erection and space in storing. Each section, containing eight rows of seating which accommodates 1024 persons, can be opened to its full width or less by a single person in a matter of minutes. Opened its full width it extends 13 ft. 8 in. from the wall. When not in use, each section is closed against the wall, occupying a depth of only 2 ft. 8 in. In this position, seatboards and footboards, which take the wear of foot traffic, are hidden from view. Riser boards, running along the front of each row, alone remain visible, forming an attractive wall of finished wood.

(For Further Details Circle Index Code 0288)

SELF-DEFROSTING FREEZERS

Upright storage freezers designed for use primarily as storage refrigerators to hold pre-frozen food products of all kinds at 0-deg. temperature are available from the Puffer-Hubbard Refrigerator Co., Grand Haven, Mich. The two units most suitable for school use are models F-22 and F-31. Both have an aluminum interior; a stainless-steel front; aluminum ends, top, and back; and feature an automatic self-defrosting freezing system which eliminates exterior sweating and freezing of the doors.



Storage Freezer

Model F-22 has a 22-cu.-ft. capacity and measures 47 in. in width, 27 in. in depth, and 73½ in. in height. Model F-31 has a 31-cu.-ft. capacity and measures 52 in. in width, 31 in. in depth, and 73½ in. in height.

(For Further Details Circle Index Code 0289)

FASTER WEIGHING BALANCE

A portable micro-balance which weighs small samples easier, faster, and more accurately than conventional balances has been announced by Central Scientific Co., Chicago, Ill. Manufactured by Cahn Instrument Co., and available through Central Scientific, the new instrument, called the Electrobalance, permits laboratories to perform micro-weighing operations in a few seconds without problems caused by vibration, temperature, air currents, or leveling. Weighing less than 12 pounds, the Electrobalance is smaller than a portable typewriter, and can be moved easily from one part of the laboratory to another. Controls on the instrument are simple and easy to understand. Self-contained, it needs no external power or utilities. It operates by an electric measurement of torque and reads directly in micrograms. Complete weighings average less than one minute.

(For Further Details Circle Index Code 0290)

(Concluded on page 106)



Safeguarding America's Future!

As a school official, you have a direct responsibility in the most important job in the world—the job of safeguarding America's future—our children. Wayne is proud to be helping in this work by producing the world's safest school bus bodies.

Advanced Wayne School Buses bring you a record-breaking number of "safety firsts"—a whole new concept in passenger security. Never before have school coaches provided such excellent visibility for accident prevention and such strong construction for impact re-

sistance. Feature after feature is designed to provide greatest driving safety and passenger protection.

In 1892 Wayne built America's first horse-drawn "kid hack" . . . in 1914 Wayne produced the first motor powered school bus . . . in 1930 Wayne designed the first all-steel school bus . . . and today, as in the past, Wayne School Buses are far in the lead.

Take no chances. Put yourself above criticism. Choose Wayne School Buses—America's Safest Way to Go to School.

Note: Top photo shows students on field trip to Wright-Patterson Air Force Base, Ohio



TREND-MAKER OF THE SCHOOL COACHES

WAYNE WORKS DIVISION • DIVCO-WAYNE CORPORATION
Richmond, Indiana



CLASSROOM BOOK MOBILES

Two-tiered book cabinets that can be used as stationary furniture or as a mobile means of distributing and collecting books are available from the Brunswick-Balke-Collender Co., Chicago 5, Ill. They are handy, mobile storage units called book trucks. Each may be assembled in scores of door, shelf-divider, and



Movable Book Cabinet

mounting combinations. The possible combinations of cabinets are limited only by the need of the hour, day, or semester. Shelf dimensions of the book truck meet the requirements of the wide variety of books published. Smooth-finish, rounded edges prevent damage to the volumes. Interchangeable dividers make it possible to categorize books as desired.

(For Further Details Circle Index Code 0291)

FOLDING TABLES RESTYLED

Portable folding tables restyled by Lippincott & Margulies, New York industrial designers who styled the interior of the atomic submarine *Nautilus*, have been introduced by Sico Mfg. Co., Minneapolis, Minn. Outstanding features of the new tables include: crevice-free tops made of honeycomb core bonded to Masonite; legs which serve both for support and as handles for folding and un-



Crevice-Free Top

folding; a 14-gauge structural steel frame which has been electrically arc welded and plated with zinc lustron; self-locking aircraft nuts at pivot points and blind pivots to fasten the top to the framework from underneath; seats of 1½-in. wood laminate finished in Plextone process; and 4-in. rubber casters for easy portability.

Model B-Y, pictured above, is available in a 10- or 12-ft. size. It requires 51½ sq. ft. in use and 8¼ sq. ft. folded.

(For Further Details Circle Index Code 0292)

FILM-CONTAINER IDENTIFICATION

Handy, durable decals that can be applied to film containers for identification purposes have been introduced by Meyercord Co., Chicago 44, Ill. A valuable item for audio-visual departments, these decals eliminate the danger of having identifying labels peel off or become damaged, and they also provide a uniform system of marking and cataloguing film containers.

(For Further Details Circle Index Code 0293)

EASY-TO-CLEAN FLUORESCENT FIXTURE

Maintenance of fluorescent fixtures, often a difficult task, has been made easy by the Ruby Philite Corp., Long Island City, N. Y. They have produced a fluorescent fixture that has a hinge-attached bottom which can be opened with a touch of the finger. Unsightly knobs and exposed parts are eliminated and no tools are required for releasing the latch. A vibration-proof mechanism. It is easy to operate and holds the door firmly in place.

(For Further Details Circle Index Code 0294)

CATALOGS & BOOKLETS

How to use audio-visual equipment more effectively is explained in four new booklets recently released by the Bell & Howell Co., Chicago, Ill. Copies of the publications entitled: *Teaching and Training with Filmstrips*, *Teaching and Training with Tape Recorders*, *Teaching and Training with Motion Pictures* (magnetic sound), and *Teaching and Training with Motion Pictures* (optical sound), are 10 cents each.

(For Further Details Circle Index Code 0295)

"Are You Interested in a Low-Fat and Low-Cholesterol Breakfast" is the title of leaflet recently published by Cereal Institute, Inc., Chicago, Ill. Based on scientific library research the leaflet provides valuable data reporting the fat and cholesterol content of common breakfast food. Free copies of the leaflet are available.

(For Further Details Circle Index Code 0296)

Information about Mississippi glass patterns in the modern school, light transmission data, and other information of interest to school board personnel and architects is provided in the latest catalog released by the Mississippi Glass Co., St. Louis. Copies of the catalog designated 57-G are free.

(For Further Details Circle Index Code 0297)

A 48-page booklet offering solutions to many of the problems faced by officials in providing school lunches is available from the Field Research Division of the Paper Cup and Container Institute. Based on the actual experience of feeding authorities in the public schools, the manual is entitled "Solving Problems with Paper Service." Copies are available without cost.

(For Further Details Circle Index Code 0298)

Portable typewriters in new colors to blend with any decorating scheme are described and illustrated in a color brochure prepared by Remington Rand. The brochure designated WT-1290 is available free of charge.

(For Further Details Circle Index Code 0299)

The complete line of Mills Movable Metal Walls, including a new series of aluminum partitions, is covered in the 1957 Mills Walls Catalog recently released. A complete listing of the Mills representatives is also included in the catalog which can be obtained by request from the Mills Co., Cleveland, Ohio.

(For Further Details Circle Index Code 0300)

Printing calculators, electric adding machines, and hand adders in new decorator colors are described in a full color broadside "Color Makes the Difference" recently published by Remington Rand, New York 10, N. Y. Copies are free.

(For Further Details Circle Index Code 0301)

A new, four-page three-color catalog showing their new line of 1957 "Kitchen-Aire" ventilators has been released by Stewart Industries, Inc. Copies of the catalog are free.

(For Further Details Circle Index Code 0302)

A 20-page manual describing seven different partition systems has been published by Penn Metal Co., Inc., Boston, Mass. Copies of the booklet entitled *Penmetal Partition Systems* are free.

(For Further Details Circle Index Code 0303)

Full details about the application and planning of toilet compartment installations is presented in a 16-page catalog prepared by Fiat Metal Mfg. Co., Franklin Park, Ill. Free copies of the catalog designated No. 570 are available.

(For Further Details Circle Index Code 0304)

Complete details about Wayne rolling gymstands are available in a new 16-page catalog released by Wayne Iron Works, Wayne, Pa. Copies of the bulletin, Catalog R-57, will be sent on request.

(For Further Details Circle Index Code 0305)

How to determine the selection of proper controls for heating and ventilating systems in today's modern schools and colleges is discussed and illustrated in non-technical language in a new 16 page booklet, F7773, recently issued by Barber-Colman Co., Rockford, Ill. Copies are available upon request.

(For Further Details Circle Index Code 0306)

MANUFACTURERS' NEWS

Four manufacturers of commercial kitchen machinery have combined to provide a joint coast-to-coast sales, warehousing, and service policy on their full lines of equipment. They are: *Dishwashing Machinery Co.*, Nutley, N. J.; *Sanitary Scale Co.*, Belvidere, Ill.; *Triumph Mfg. Co.*, Cincinnati, Ohio; and *M.J.M. Mfg. Co.*, Culver City, Calif. Central headquarters for the United Manufacturers is at 30 Windsor Place, Nutley 10, N. J.

A new marketing plan for the merchandising of band instruments has been inaugurated by the *Conn Band Instrument Division of C. G. Conn, Ltd.*, Elkhart, Ind. Dealers are shown early in the year, the complete line of instruments and finishes that will be available to them throughout the year.

W. W. Gamble, president of the *Yawkey-Bissell Hardwood Flooring Co.*, White Lake, Wis., was elected president of the *Maple Flooring Manufacturers' Association* at the group's 60th annual meeting held in Chicago on February 1, 1957. He succeeds D. S. DeWitt, who served during the past five years.

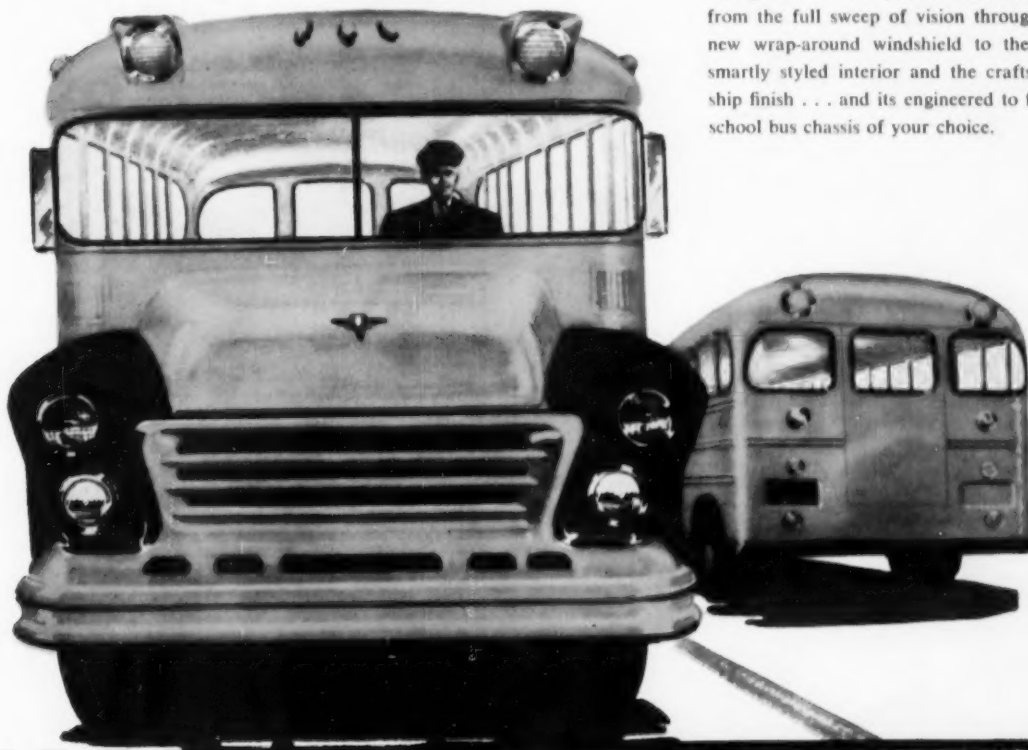
SCHOOLBUS DRIVER CONTEST

Oneida Products, a division of Henney Motor Co., Inc., Canastota, N. Y., recently announced it will again sponsor a competition to find the country's safest school bus drivers, in which \$15,000 in prizes will be awarded to the nation's 100 safest schoolbus drivers. Each driver wishing to enter the competition must have an accident-free record for the 12 month period ending May 31, 1957, and must send a letter outlining his personal safety campaign and recommendations for promoting greater safety in operation of school buses. Complete details and entry blanks may be obtained from the company.

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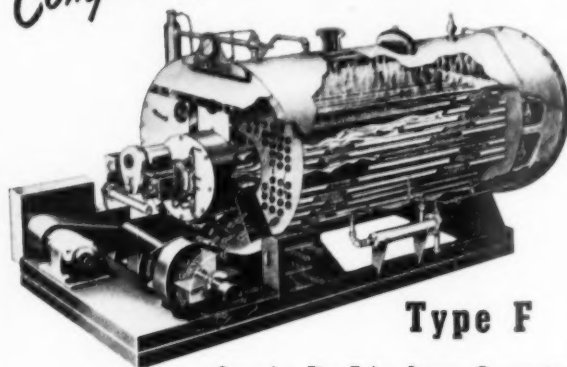
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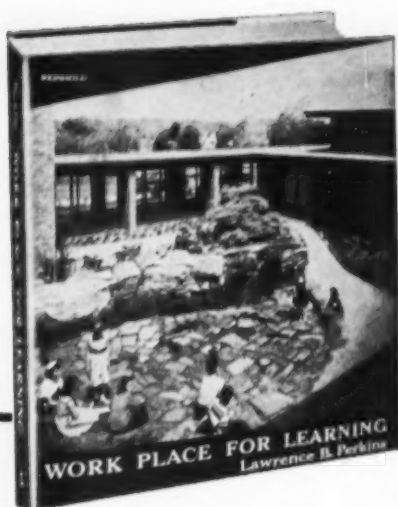
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May, 1957
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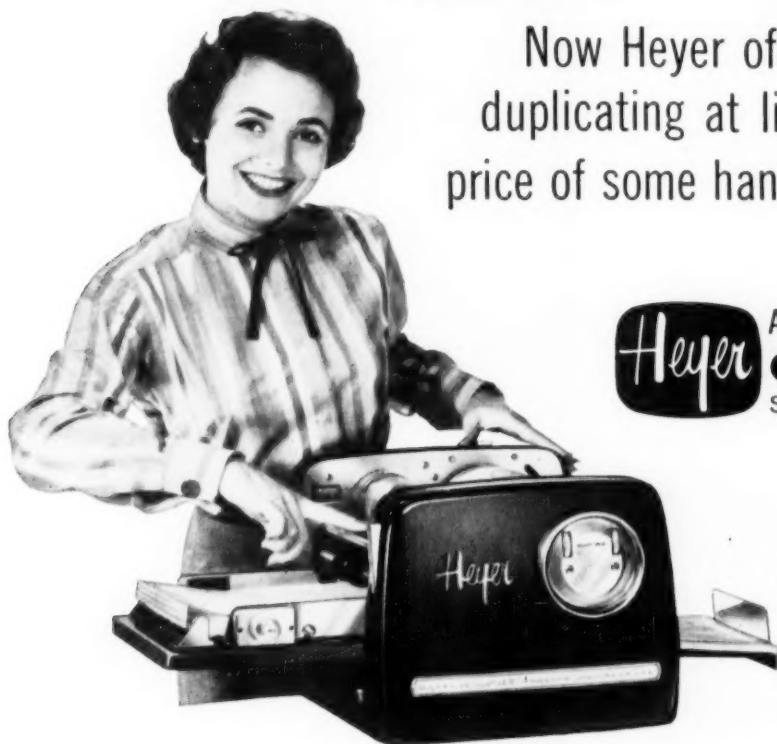
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548	Sexton & Co., Inc., John. 93		Classroom Book Trucks
	Institutional food.	0292	Sico Mfg. Co. 106
549	Shwayder Brothers, Inc. 65		Folding Tables
	All-steel folding chairs.	0293	Meyercord Co. 106
550	Sloan Valve Co. 1		Film Container Identification
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551	Southern California Plastering Institute. 14		Fluorescent Fixture
	Genuine Lath and plaster.	0295	Bell & Howell Co. 106
552	Stran-Steel Corp. 91		Booklets
	Steel buildings.	0296	Cereal Institute, Inc. 106
553	Structural Slate Co. 80		Leaflet
	Natural slate chalkboards.	0297	Mississippi Glass Co. 106
554	Superior Combustion Industries, Inc. 108		Catalog
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555	Taylor Co., Halsey W. 90		Booklet
	Fountains, coolers.	0299	Remington Rand. 106
556	U. S. Rubber Reclaiming Company, Inc. 92		Brochure
	Low cost rubberized playground.	0300	Mills Co. 106
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	Steel stadiums.	0301	Remington Rand. 106
558	Universal Bleacher Co. 89		Booklet
	Roll-A-Way bleachers.	0302	Stewart Industries, Inc. 106
559	Vogel-Peterson Co., Inc. 82		Catalog
	Wardrobe systems.	0303	Penn Metal Co., Inc. 106
560	Wayne Iron Works. 85		Manual
	New rolling gymstand advances.	0304	Fiat Metal Mfg. Co. 106
561	Wayne Works, The. 105		Catalog
	School buses.	0305	Wayne Iron Works. 106
			Catalog
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with the Series Hot Water Wind-o-line System

Creve Coeur, Illinois

Heating cost: \$1.41 sq. ft.

The two-story Creve Coeur Elementary School was designed and engineered by George Poppo Wearda, Pekin, Ill. With capacity for 256 pupils and gross area of 11,800 square feet, the entire eight-classroom building cost \$156,124. Total cost for heating and ventilating with Nesbitt series hot water system (Syncretizer unit ventilators with Wind-o-line radiation concealed by Nesbitt storage cabinets) was \$11,400.

Framingham, Massachusetts

Heating cost: \$1.74 sq. ft.

The Framingham Senior High School, Samuel Glaser Associates, Architects and Engineers, has a 1300-pupil capacity, a gross area of 187,328 square feet for a total cost of \$2,509,000. The classroom learning environment is protected by Nesbitt Syncretizer unit ventilators and Wind-o-line radiation integrated as a series hot water system. The total heating and ventilating system costs were \$327,000.

Papillion, Nebraska

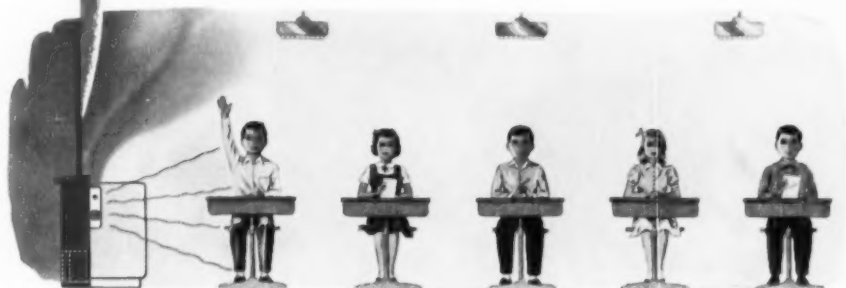
Heating cost: \$1.83 sq. ft.

Papillion High School was designed by Unthank & Unthank and engineered by James P. Anderson. With a 200-pupil capacity and 15,296 sq. ft. gross area, the building costs totaled \$191,592. Nesbitt Syncretizer unit ventilators combined with Wind-o-line radiation for cold wall and downdraft protection were employed as a series hot water heating and ventilating system. The total heating contract was \$28,900.

Bridgeton, New Jersey

Heating cost: \$1.60 sq. ft.

The new Bridgeton High School, a project of Edwards & Green, Architects and Engineers, Camden, N. J., will accommodate 2,200 pupils, have a gross area of 201,000 square feet, and cost \$2,880,865. Heating and ventilating will be furnished by Nesbitt Syncretizer unit ventilators piped in series hot water fashion with cabinet-type or wall-hung Wind-o-line radiation. Total heating contract: \$321,701.



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